FINANCIAL TIMES

TUESDAY 29 NOVEMBER 2022 INTERNATIONAL NEWSPAPER OF THE YEAR EUROPE

The week that will test the global oil market
BIG READ, PAGE 17

Don't be complacent about a short recession
MOHAMED EL-ERIAN, PAGE 12

China crisis
Crackdown on Covid protests

Bloomberg

A local official speaks to a demonstrator holding a blank sign — symbolising censorship — in Beijing yesterday, amid protests against zero-Covid lockdowns.

Tens of thousands of people took to the streets over the weekend protesting against strict coronavirus controls and suppression of freedom of speech, triggering clashes with police and security forces that led to a spate of detentions.

Most demonstrations appeared to have been stamped out yesterday. They follow months of frustration, especially among young people, over relentless lockdowns, quarantines, mass testing and electronic surveillance.

The government has urged universities to send students home as soon as possible to quell further dissent, according to a provincial education official.

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Lagarde says ECB 'not done' raising rates despite signs of easing inflation

- No sign of shift to smaller increments
- Caution over fall in gas prices
- Key data released tomorrow

MARTIN ARNOLD — FRANKFURT

Christine Lagarde has warned that the European Central Bank "is not done" raising interest rates, saying that inflation "still has a way to go".

Her comments came after a sharp fall in European wholesale energy prices, combined with an easing of supply chain bottlenecks, encouraged hopes that eurozone inflation was slowing. US inflation also fell in October and global data indicators suggest that this year's rampant global inflation has peaked.

But the ECB president struck a bearish tone. "I would like to see inflation [as] having peaked in October, but I'm afraid that I would not go as far as that."

Some investors expect that the ECB will move to smaller rate increases in line with the US Federal Reserve of 0.5 percentage points rather than 0.75 percentage points.

But Lagarde's comments indicated the ECB was not ready to slow down. "We have to stop stimulating demand," she said, adding that the bank was in "highly accommodative territory", indicating it had to tighten further.

Soaring energy and food prices sparked by Russia's invasion of Ukraine and the lifting of coronavirus lockdowns propelled eurozone inflation to an all-time high of 10.6 per cent in the year to October.

> 'I would like to see inflation [as] having peaked, but I would not go as far as that'
> Christine Lagarde, ECB president

Economists polled by Reuters expect eurozone inflation to have slowed to 10.4 per cent in November when the latest price data is released by the European Commission's statistics agency tomorrow. But Lagarde said there was still some "pass-through", from higher wholesale energy prices to consumer prices, to come.

Natural gas prices had fallen about 40 per cent since their peak in September, but Lagarde said this reflected mild recent weather in Europe that reduced energy consumption and helped to fill gas storage tanks, adding that conditions could change for the worse next year.

"We need to be very, very careful because on the gas futures markets the drop has not been as significant, and the causes behind this decline of gas and the reduced pressure on the short-term rates — we have to be careful whether they will last," she said.

Lagarde's comments signal that there is likely to be a lively debate at next month's ECB meeting, with policymakers split between keeping up the pace of rate rises to avert a wage-price spiral or switching to smaller increases on the back of signs of a recession.

Philip Lane, the dovish ECB chief economist, said last week that euro area consumer price growth would start to fade next year and many of the arguments for another 0.75 percentage point rate rise were "no longer there".

But Klaas Knot, the hawkish head of the Dutch central bank, said yesterday it was not a "foregone conclusion" that Europe would enter recession and worries about ECB over-tightening policy were "a bit of a joke".

He added: "We have to prepare ourselves for a protracted period in which policymakers and central bankers will have to be on it and focus on restoring price stability."

Analysts at Goldman Sachs said that a change in how Italy calculated energy prices could propel overall eurozone inflation to a new record of 11 per cent in November, which would put pressure on the ECB to maintain the size of its rate rises.

Mohamed El-Erian page 12
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Briefing

▸ H2O tells clients alleged breaches were 'technical'
The asset manager has described as "technical" alleged breaches in rules that led French watchdogs to recommend the largest fine in their history.— PAGE 6

▸ Russia drone ban tested
Norway's ban on Russians flying drones will be challenged today by a former Putin associate's son, who flew his hobby device over Svalbard from his yacht.— PAGE 2

▸ EU faces greenwash claim
Climate experts have warned that Brussels' plans to certify removal of carbon from the atmosphere fall short of what is needed to limit global warning.— PAGE 2

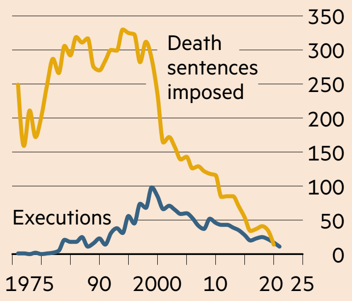
▸ Dublin data fine for Meta
The Facebook and Instagram parent has been fined €265mn by a watchdog over its handling of user data, bringing its total EU penalties to €1bn.— PAGE 6

▸ Fed official in jobs alert
John Williams, head of the central bank's New York branch, has warned that the unemployment rate could reach 5 per cent in the US next year.— PAGE 4

▸ Netanyahu nearer power
Israel's former premier moved closer to forming a government after striking a deal with a small group known for its opposition to LGBT+ rights.— PAGE 4

Datawatch

US capital punishment



Source: Bureau of Justice Statistics

The number of executions carried out in the US has plunged from its modern-era peak in 1998 as the pandemic delayed legal cases. The Biden administration has also ordered a halt in federal executions pending a justice department review

Alzheimer's researchers await breakthrough data
Analysis ▸ PAGE 8

Europe still depends on Russian gas as seaborne imports jump to record high

SHOTARO TANI — LONDON

Europe is importing a record amount of seaborne Russian gas, highlighting how the region has not completely shaken its dependence on the country for the key fuel even though flows through pipelines have all but stopped.

Imports of Russian liquefied natural gas, which is typically transported on big tankers, rose more than 40 per cent between January and October this year, compared with the same period in 2021, highlighting the difficulty for Europe in weaning itself off gas from Moscow despite Brussels's attempts to shift away from Russian sources.

Russian LNG made up 16 per cent of European seaborne imports during the period. While a fraction of the level of pipeline gas flows during this time, it nevertheless leaves Europe exposed to Putin's weaponisation of energy. "One day, Putin could wake up and say, 'we'll stop sending LNG to Europe', forcing the region to buy from an even more expensive spot market," said Anne-Sophie Corbeau, global research scholar at the Center on Global Energy Policy at Columbia University.

Russia could also divert the cargoes to LNG-starved countries such as Bangladesh and Pakistan at cheap prices to "achieve political gains" and "put pressure on Europeans", she added. "It's very important not to forget that a lot of countries are suffering, because they cannot afford LNG."

There are no sanctions on Russian gas, because of its importance to some European nations' energy security. The Kremlin has taken advantage by gradually reducing the flow through pipelines after the invasion of Ukraine, boosting prices and fuelling a cost of living crisis across the continent.

Gas flows through the Yamal pipeline, which runs through Poland, have been halted since May, and Russia cut flows through the Nord Stream 1 line to Germany in the summer. The pipeline later ruptured, in what some European countries alleged was an act of sabotage.

Russia has also threatened to restrict supplies to western Europe through the only pipeline still connecting the region through Ukraine. Pipeline gas from Russia is down nearly 80 per cent compared with the same period last year, according to data from think-tank Bruegel.

"My somewhat cynical take is if we buy LNG from Russia, that's OK. Because we are getting from the Russians what would otherwise have been sent [somewhere else]," said Georg Zachmann, senior fellow at Bruegel.

World Markets

STOCK MARKETS

	Nov 28	Prev	%chg
S&P 500	3993.74	4026.12	-0.80
Nasdaq Composite	11147.77	11226.36	-0.70
Dow Jones Ind	34092.13	34347.03	-0.74
FTSEurofirst 300	1728.94	1739.73	-0.62
Euro Stoxx 50	3939.14	3962.41	-0.59
FTSE 100	7474.02	7486.67	-0.17
FTSE All-Share	4098.49	4112.31	-0.34
CAC 40	6665.20	6712.48	-0.70
Xetra Dax	14383.36	14541.38	-1.09
Nikkei	28162.83	28283.03	-0.42
Hang Seng	17297.94	17573.58	-1.57
MSCI World $	2703.67	2706.01	-0.09
MSCI EM $	941.01	945.57	-0.48
MSCI ACWI $	625.15	625.96	-0.13
FT Wilshire 2500	5229.12	5229.15	0.00
FT Wilshire 5000	40835.91	40833.88	0.00

CURRENCIES

Pair	Nov 28	Prev	Pair	Nov 28	Prev
$/€	1.040	1.041	€/$	0.962	0.961
$/£	1.204	1.209	£/$	0.831	0.827
£/€	0.864	0.861	€/£	1.158	1.162
¥/$	138.795	139.250	¥/€	144.312	144.910
¥/£	167.088	168.408	£ index	79.517	79.760
SFr/€	0.983	0.985	SFr/£	1.138	1.145

CRYPTO

	Nov 28	Prev	%chg
Bitcoin ($)	16094.38	16419.25	-1.98
Ethereum	1160.64	1193.02	-2.71

COMMODITIES

	Nov 28	Prev	%chg
Oil WTI $	76.94	76.28	0.87
Oil Brent $	83.46	83.63	-0.20
Gold $	1751.85	1755.40	-0.20

GOVERNMENT BONDS

Yield (%)	Nov 28	Prev	Chg
US 2 yr	4.43	4.50	-0.07
US 10 yr	3.69	3.72	-0.03
US 30 yr	3.74	3.77	-0.03
UK 2 yr	3.35	3.32	0.03
UK 10 yr	3.12	3.12	0.00
UK 30 yr	3.36	3.33	0.03
JPN 2 yr	-0.02	-0.02	0.00
JPN 10 yr	0.25	0.25	0.00
JPN 30 yr	1.49	1.48	0.00
GER 2 yr	2.17	2.18	-0.01
GER 10 yr	1.99	1.97	0.01
GER 30 yr	1.88	1.87	0.01

Prices are latest for edition
Data provided by Morningstar

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Austria	€4.30	Morocco	Dh50
Bahrain	Din1.8	Netherlands	€4.30
Belgium	€4.30	Norway	NKr45
Croatia	Kn32/€4.25	Oman	OR1.60
Cyprus	€4.00	Pakistan	Rupee350
Czech Rep	Kc120	Poland	Zl 24
Denmark	DKr43	Portugal	€4.00
Egypt	E£59	Russia	€5.00
France	€4.30	Serbia	NewD530
Germany	€4.30	Slovenia	€4.00
Greece	€4.00	Spain	€4.00
Hungary	Ft1350	Switzerland	SFr6.50
India	Rup220	Tunisia	Din7.50
Italy	€4.00	Turkey	TL50
Luxembourg	€4.30	UAE	Dh23
Malta	€4.00		

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No: 41,184 ★

Printed in London, Liverpool, Glasgow, Dublin, Frankfurt, Milan, Madrid, New York, Chicago, San Francisco, Tokyo, Hong Kong, Singapore, Seoul, Dubai

VISIT…

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INTERNATIONAL

Climate change

Brussels warned of carbon greenwashing

Activists say EU plans are too vague on complex capture schemes

ALICE HANCOCK — BRUSSELS

EU plans to certify removals of carbon from the atmosphere are at risk of allowing greenwashing and fall short of what is needed to curb emissions to limit global warming, according to climate change experts.

Under the latest draft of the proposal, operators of carbon removal schemes would be able to register carbon that is taken and stored deep in underground rock formations. It would also allow for the carbon stored in land areas such as forests and soils and in "long-lasting products" — these are not yet defined but could include wooden buildings as "stores", for example.

The EU regulation sets up the workings of a certification system without presenting any detail on what would count as permanent carbon removal or how long the carbon must be stored to be counted, environmental experts say.

"It's a framework, it's very vague, it's very non-committal, we are lacking a lot of very crucial wording," said Wijnand Stoefs, policy officer at the non-governmental organisation Carbon Market Watch, an observer at the UN Framework Convention on Climate Change.

Carbon capture and storage — the process of capturing carbon before it goes into the atmosphere — would be counted as a "permanent removal" under the EU proposal. However, CCS does not meet the EU's criteria for carbon removal, which defines it as carbon taken out of the atmosphere and not just capturing new emissions.

In an open letter published yesterday, eight environmental organisations said the EU was wrong to give prominence to technologies such as carbon capture and storage, which were "not currently viable at scale and have potentially enormous social, environmental, and economic risks and costs from their very high energy and resource consumption as well as from the transport and storage of carbon dioxide".

The question of removing carbon from the atmosphere has risen in prominence as it becomes more apparent that the world is unlikely to be able to keep the rise in temperatures to the "well below 2C" level, and ideally 1.5C, set out in the Paris climate agreement.

Temperatures have already risen at least 1.1C, and emissions have continued to increase globally despite efforts in developed nations to cut reliance on fossil fuels and develop cleaner energy.

The EU has set out its ambition to reach net zero greenhouse gas emissions by 2050 through a series of laws under its umbrella "Green Deal" legislation. In 2021, it set interim targets of cutting greenhouse gas emissions by 55 per cent by 2030 compared with 1990 levels.

Nascent carbon offset markets already allow companies to buy against projects that claim to have reduced or absorbed emissions, such as growing trees or ocean conservation. Scientists and climate experts judge these as flawed, as they are hard to monitor and distract from making an effort to cut the sources of emissions.

The EU's carbon removal certification framework would be the first government effort to set a standard for such initiatives. The area is highly complex to regulate, as accounting methods must ensure the carbon removed is additional and verified, and that it is kept in a store permanently. Relying on forests to store carbon, for example, can be problematic if there are forest fires, turning the trees into carbon emissions instead.

Italy

Landslide death toll rises

Rescuers search the hills in Casamicciola Terme on the Italian island of Ischia yesterday as the death toll from a landslide caused by torrential rain rose to eight.

Experts and activists said the construction of illegal buildings increased the risks from natural disasters on the island. Four people were still missing after Saturday's disaster in the port town, with houses brought down and mud submerging the streets. The confirmed victims included a 22-day-old infant and two other young children.

Ischia, whose thermal baths draw visitors from across the world, is also known for its rampant unauthorised construction. A previous landslide in 2006 killed a father and his three daughters. *Reuters*

Salvatore Laporta/AP

National security

Norway ban on Russians flying drones faces court challenge

RICHARD MILNE — OSLO

Norway's ban on Russians flying drones is to be challenged in court proceedings that open today against the son of a former close associate of President Vladimir Putin.

Andrey Yakunin, a dual Russian-British national, flew a recreational drone over the Arctic archipelago of Svalbard in August and September from his yacht but will plead not guilty at his trial in the northern city of Tromsø.

A least seven Russians have been arrested in recent months for flying drones as western Europe's largest oil producer worries about sightings of the unmanned aircraft near North Sea oil and gas installations.

Norwegian and Nato jets and warships have patrolled waters near oil rigs following the sabotage in September of the Nord Stream gas pipelines off Denmark and Sweden.

Yakunin, son of Vladimir Yakunin, former head of Russian Railways, will argue that Norway's rules, which are based on EU sanctions, are the harshest in Europe and discriminatory.

"There is no offence for a British man to fly a drone over Svalbard," he told the Financial Times from his prison cell in Tromsø. A Russian who flew a drone in western Norway was sentenced to 90 days in jail by a Bergen court last week.

Yakunin's lawyers say his case will end up in the appeal system as it raises complex legal issues.

Bernt Heiberg, Yakunin's lawyer at Elden, an Oslo law firm, said Norway had never before based criminal sanctions "on the citizenship of the accused". Norway was, "as far as we understand, the only European country to prosecute people for flying drones in their airspace".

Heiberg said interpretation of the rules changed after the Nord Stream sabotage to include drones among aircraft to which EU sanctions apply. "It now entails something it didn't entail before," he said.

Svalbard is a demilitarised but geopolitically sensitive part of Norway with the most northern inhabited settlements in the world, including a Russian mining town. There are no oil rigs or pipelines nearby.

Yakunin said he had sailed in northern Norway for the past six years on his Firebird yacht, and that taking pictures using a "camera with wings" was his way of sharing the beauty of the Arctic.

Asked if he was working for Russian intelligence, Yakunin said: "Not only I wasn't, but I have nothing to do with them, and for that matter nothing to do with the Russian state either.

"There is no ill intent, or God forbid that we went near any critical infrastructure or no-fly zones," he said.

Norway, which borders Russia in the north, has been on edge following the arrest of the Russians and drone sightings near oil rigs, but also the uncovering of a suspected Russian spy seemingly masquerading as a Brazilian researcher at Tromsø's university.

Two days after Yakunin's arrest in October, Prime Minister Jonas Gahr Støre said: "It is not acceptable for foreign intelligence to fly drones over Norwegian airports. Russians are not allowed to fly drones in Norway."

Database access. **Beneficial ownership**

Ruling raises concern for return of EU corporate secrecy

Campaigners say privacy has trumped transparency in closure of public registers

KATE BEIOLEY — LONDON

Until last week, anyone wanting to identify the ultimate owner of an EU-based company could consult databases in member states. This public access has helped expose abuses by, among others, a Czech prime minister and a Lebanese central bank governor.

But in a ruling last week in a case centred on privacy and data protection, the Court of Justice of the EU has in effect shut such registers to public view.

Transparency campaigners described the decision as a drastic regression in the anti-money laundering fight, adding it was likely to have a chilling effect. Privacy lawyers hailed it as protecting individuals' rights.

Brussels introduced public registers in 2018 anti-money laundering rules that were hailed as a way to lift the lid on shell structures used for economic crime. The bloc asked members to establish up-to-date registers of beneficial ownership.

The rules led to appeals in Luxembourg, one of the first to introduce a public database, from parties refused exemptions from publication. Luxembourg asked the CJEU to consider whether the databases were a violation of privacy rights, personal data and the general data protection regulation.

The court found the rules granted overly wide access without justifying the interference into privacy. The ruling invalidated the provision in the 2018 laws that introduced public registers.

Filippo Noseda of Mishcon de Reya, the law firm, who represented five appellants, said: "The CJEU has recognised that in a democratic society, competing interests need to be weighed against each other in any given case, without prejudices or preconceptions about motives."

Maíra Martini, an authority on corrupt money flows at Transparency International, the non-governmental organisation, said: "At a time when the need to track down dirty money is so plainly apparent, the court's decision takes us back years."

Brussels and the European parliament must now amend legislation to reflect the ruling. But fearful of legal reprisals if they do not act, governments are already removing access to registers.

> 'The CJEU has recognised that competing interests need to be weighed against each other in any case'

By the end of last week, three days after the ruling, Austria, the Netherlands, Belgium and Luxembourg had taken down their databases, and more are expected to follow. Sweden, Estonia, Germany, Austria and Ireland have public databases.

Thom Townsend, executive director of OpenOwnership, a non-profit group, said: "If countries don't [act] it's reasonable to expect businesses to ask for the registers or their details to be removed."

Campaigners are concerned that the ruling will have a "chilling effect" on efforts to launch databases across the world. "Public registers across Europe acted as an incentive to other countries," Martini said. "Now we're going back to an era of corporate secrecy."

Those with a "legitimate interest" can apply to see the information, but it is not clear how.

The court said the press and civil society groups had a role to play in the "prevention and combating of money laundering and terrorist financing", and had a "legitimate interest" in accessing the information. But it refused to define legitimate interest or set out the hurdles that those groups would have to clear to gain access.

Campaigners are hoping to persuade the commission to codify protections in forthcoming anti-money laundering rules. In the meantime, member states will have to process requests for access, which could be costly and burdensome.

Transparency campaigners argue that in the short term the ruling will increase opacity over who owns European companies and increase the potential for the abuse.

TI used the Czech Republic's database in 2018 to establish that Andrej Babiš, then prime minister, had breached conflict of interest rules over continued ties to Agrofert, his former business. Babiš denied wrongdoing but the commission found he had broken the rules.

The decision will also hamper law enforcement, they said. Authorities have other ways to access databases but they had benefited from the easy access that public registers provide.

Journalists and civil society groups have tracked politically exposed individuals charged with wrongdoing through public registers, according to TI. Those include Riad Salameh, Lebanon's central bank governor, who was charged with money laundering in March.

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Published by: The Financial Times Limited, Bracken House, 1 Friday Street, London EC4M 9BT. Tel: +44 20 7873 3000; Fax: +44 20 7407 5700. Editor: Roula Khalaf.

Germany: Demirören Media, Hurriyet AS-Branch Germany, An der Brucke 20-22, 64546 Morfelden-Walldorf, +49 6105 327100. Responsible Editor, Roula Khalaf. Responsible for advertising content, Jon Slade.
Italy: Monza Stampa S.r.l., Via Michelangelo Buonarroti, 153, Monza, 20900, Milan. Tel. +39 039 28288201 Owner, The Financial Times Limited; Rappresentante e Direttore Responsabile in Italia: I.M.D.Srl-Marco Provasi - Via G. Puecher, 2 20037 Paderno Dugnano (MI), Italy. Milano n. 296 del 08/05/08 - Poste Italiane SpA-Sped. in Abb.Post.DL. 353/2003 (conv. L. 27/02/2004-n.46) art. 1 .comma 1, DCB Milano.
Spain: Bermont Impresion, Avenida de Alemania 12, CTC, 28821, Coslada, Madrid. Legal Deposit Number (Deposito Legal) M-32596-1995; Publishing Director, Roula Khalaf; Publishing Company, The Financial Times Limited, registered office as above. Local Representative office; C/ Infanta Maria Teresa 4, bajo 2, 28016, Madrid. ISSN 1135-8262.
UAE: Masar Printing & Publishing, P.O. Box 485100, Dubai. Editor in Chief: Roula Khalaf.
France: Publishing Director, Jonathan Slade, 46 Rue La Boetie, 75008 Paris, Tel. +33 (0)1 5376 8256; Fax: +33 (01) 5376 8253; Commission Paritaire N° 0919 C 85347; ISSN 1148-2753.
Turkey: Dunya Super Veb Ofset A.S. 100. Yil Mahallesi 34204, Bagcilar- Istanbul, Tel. +90 212 440 24 24.
Sweden: Responsible Publisher - Christer Norlander

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Recovery cash

Catalonia urges Madrid to spend bloc funds on big projects

BARNEY JOPSON — BARCELONA

Catalonia has called on the Spanish government to use billions of euros in EU recovery funds to reverse deindustrialisation, arguing it risks squandering a chance to boost growth by putting too much emphasis on small projects.

Natàlia Mas, the top economic official in the Catalan regional administration, said the central government, which is overseeing the deployment of €140bn in EU funds in Spain, had to make sure investments were tailored to areas hollowed out by factory closures.

"If you chop up the resources excessively, if you don't support big transformational projects, it's doubtful that you'll achieve a permanent impact," she told the Financial Times. "We cannot afford to have gaps in strategic areas." Spain has asked Brussels for more time to distribute the EU funds — from a programme set up before the Ukraine war to support the post-pandemic recovery — and is facing private sector criticism over transparency and the allocation of funds. Mas's comments highlight tension with regional governments that are partnering with Madrid to manage some of the so-called Next Generation EU investments.

In Catalonia, the process is overlaid with political rancour stemming from the regional government's aspirations for independence and the fallout from an explosive 2017 referendum, which was fiercely opposed by Madrid and ruled illegal by judges.

Catalonia has so far been assigned €4bn in recovery funds. A central government official said it was the region receiving the second-largest amount. But Catalan officials say the region is still being allocated less than it is due according to its 7.7mn population and economic weight. Mas, a former European Central Bank official who became head of the Catalan economy and finance department last month, said she did not oppose using recovery funds to help small businesses, citing initiatives championed by Madrid to help set up websites or install solar panels.

"Certain projects involving small and medium-sized enterprises have an impact, but it can be diluted over time if we don't generate new industrial and technological capacities," she said.

The central government official said 9,000 Catalan companies — including 8,000 small and medium-sized enterprises — were benefiting from the recovery funds. Catalonia, an export-oriented industrial zone accounting for almost one-fifth of Spain's gross domestic product, has suffered from mass factory closures in recent decades as jobs shift to lower-cost countries. Most recently it was hit by Nissan's decision to shut its Barcelona car plant in 2021 after 40 years as it retreated from Europe to cut costs.

The central government's recovery fund plans include 11 large-scale public-private initiatives, known as Pertes, that are explicitly labelled "strategic projects".

Natàlia Mas: wants investments for areas scarred by factory closures

One covers electric vehicles and includes Volkswagen-owned Seat's overhaul of the last remaining Catalan car plant in Martorell near Barcelona, as well as its construction of a new battery plant in Valencia, which neighbours Catalonia.

Mas noted that only €877mn of the vehicle Perte's €3bn in public money had been assigned to projects and blamed the low proportion on Madrid's central control, saying a "bottom up" approach that gave regional governments a bigger say would facilitate the allocation of funds.

"We know the projects, the industrial ecosystems, the transformation needs, the particularities of the electric vehicle value chain in each territory," she said.

There is also a Perte for healthcare innovation for which about 60 per cent of the €11mn assigned so far is going to Catalan companies. But Mas said it was "very compartmentalised" and questioned whether it would support the kind of initiatives she wanted to see in advanced therapies.

INTERNATIONAL

Xi aura of infallibility punctured by outbreaks of zero-Covid ire

Waves of protest leave Chinese leader with a dilemma at start of his third term in power

TOM MITCHELL — SINGAPORE
EDWARD WHITE — SEOUL

In 2011, Xi Jinping, China's then vice-president, told US diplomats that the Arab spring rocking north Africa and the Middle East had been sparked by leaders across the region losing touch with their people.

A decade later, and less than six weeks after Xi coasted to a third term as head of the Chinese Communist party and military, the president is in a quandary after repeating their mistakes.

Does Xi crack down on the nationwide protests that erupted against his administration's zero-Covid policy over the weekend, risking an even bigger popular backlash? Or does he relent and soften Covid controls, potentially unleashing an "exit wave" of cases that could kill hundreds of thousands — if not millions — of elderly citizens over the coming winter?

The latter scenario would puncture Xi's frequent boasts that China's party-led political system can deal more effectively with existential challenges than the US and other democracies.

There were signs yesterday that local authorities were giving in to popular pressure. Two people in the central city of Wuhan, where the pandemic began three years ago, told the Financial Times that lockdowns on residential compounds had begun to lift at midnight.

"Previously compounds would be closed even if there was not a single case but one person had entered after visiting a high-risk area," said one.

Fencing used to seal off residences was also coming down in some areas of Beijing.

In an internal speech in 2012, Xi told senior cadres that the Soviet Communist party, which crumbled two years after the Berlin Wall, was doomed because nobody was "man enough" to stand up and save it.

Many are therefore sceptical that Xi, who has established himself as China's most powerful ruler since Mao Zedong and sidelined his already weak rivals at last month's 20th party congress, will give up one of his signature policy "accomplishments" without a fight.

"Xi needs to sustain the myth of his infallibility," said Steve Tsang, director of the Soas China Institute in London. "For a strongman or dictator, when challenged the instinctive response is usually repression. I don't see Xi being an exception."

Leading state media outlets refused to acknowledge the protests over the weekend and insisted the party "would not waver" in its determination to "put lives and the people first" by sticking with zero-Covid. Harsh treatment of alleged ringleaders in protests would be entirely consistent with the party's traditional reaction to direct challenges to its authority. And for every report of residents being liberated from a locked-down compound over the weekend, it seemed there was another of police responding with violence.

When Xi was challenged by millions of protesters demanding democracy in Hong Kong in 2019, he responded with an uncompromising national security law that led to the arrests of dozens of activists and ultimately crushed the movement. Similar challenges in China, by students across the country in 1989 and the Falun Gong religious sect a decade later, were dealt with violently.

In some gatherings, demonstrators have openly chanted for Xi and the party to "step down", or quoted a now famous "bridge protest" just before October's party congress in which a lone dissenter displayed a large banner calling for the president's removal from power.

Other posts citing quotes by Xi Zhongxun, Xi's late father and a senior party figure during the Mao era, on the need to listen to the people have spread faster than censors can take them down. So, too, have unflattering and sometimes graphic drawings of the president.

Economic hardship has also fuelled the outrage. "People have been locked in their homes for so long, can't open their businesses and are in debt," said Lance Gore, a China expert at the National University of Singapore.

In a video that went viral from the south-western city of Chongqing, a man known as "Chongqing Superman" entertains his neighbours with an eloquent rant about, among other things, the price of carrots, which he notes are now at least four times more expensive.

"No freedom and poverty, that's where we are today," he said to applause. His neighbours later rescued him from the clutches of the police when they tried to drag him off.

"[Chinese leaders] have been so fixated on a successful party congress [that] they really lost the pulse of just how deep the discontent was over the rolling lockdowns," said John Delury, a China expert at Yonsei University in Seoul.

"No matter what happens next, this is a giant rebuke to his policy of zero-Covid. To get to the point where you've got street demonstrations and campus speeches, that's unheard of."

But if the masses openly mocking Xi get their way by tearing down zero-Covid controls, a political disaster for China's president could also turn into a public health calamity. "Opening up now would be catastrophic," said Joerg Wuttke, head of the European Chamber of Commerce in China.

Wuttke, who has not left China since the outbreak started in January 2020, argued that the government should focus instead on a "strong vaccination push that allows China to open up next year once herd immunity is reached".

China's success in preventing uncontrolled Covid outbreaks for the first two years of the pandemic means the population has not developed natural immunity to the virus, a problem exacerbated by the patchy vaccination coverage among the elderly.

Chinese and US scientists recently forecast that an uncontrolled Omicron outbreak would cause demand for critical care units to outstrip supply by 15.6 times and result in almost 1.6mn deaths.

Additional reporting by Xueqiao Wang in Shanghai and Eleanor Olcott in Hong Kong

Gideon Rachman see Opinion **and Lex**

No comment: protesters with blank sheets of paper, symbolising censorship, come out in force on to the streets of Beijing in defiance of zero-Covid restrictions
Thomas Peter/Reuters

Outrage
Authorities clamp down on dissent in cities

The protests that erupted across China over the weekend had largely been quelled yesterday, but the unrest over Beijing's strict coronavirus controls and suppression of freedom left Xi Jinping facing one of his greatest challenges as president.

At least 10 cities, including Shanghai, Beijing, Wuhan and Chengdu, were shaken by protests over the weekend, triggering clashes with police and security officers that led to a spate of detentions, including of two foreign journalists.

The civil disobedience was sparked by outrage after a deadly apartment fire in Urumqi, Xinjiang, was partly blamed on coronavirus restrictions. The demonstrations followed months of frustration, especially among China's young, with relentless lockdowns, quarantines, mass testing and electronic surveillance under Xi's zero-Covid policies.

Markets in China turned sour yesterday, with the Hang Seng China Enterprises index in Hong Kong falling 4.5 per cent and the renminbi losing ground against the US dollar.

The government yesterday urged universities to send students home to quell further dissent, according to a provincial education official.

In Beijing hundreds of students staged peaceful demonstrations on Sunday at the Tsinghua and Peking universities. Students in the capital, as well as protesters in other cities, held blank pieces of paper, a rejection of censorship under Xi's administration.

As the vigils over the Urumqi deaths transformed into protests against Xi's policies, analysts said their scale and stark political demands had not been seen in China for decades. They warned that protesters faced brutal reprisals if dissent flared again.

Yuen Yuen Ang, from the University of Michigan, said China had always experienced sporadic protests, but Beijing feared a "nationwide" movement. "People were protesting against zero-Covid, a national policy and Xi's personal agenda, one he had declared that China must 'stick to without wavering'," she said. "This constitutes a challenge to central authority at the highest level."

The protests spread to Hong Kong last night. Dozens of mostly mainland students and workers and some local residents gathered in the city centre, defying a 2020 security law that bans political demonstrations.

FT reporters

GLOBAL INSIGHT
ASIA

Yuan Yang

Anger against virus policy creates a rare coalition of interests

Every day, somewhere in China, there is a local protest going on. The country sees hundreds of strikes a year, from staff protesting over unpaid wages to gig economy workers demanding higher rates. What prevents these protests from reaching popular consciousness is that they almost always stay local and single issue-based. They can be resolved quickly, then forgotten.

The past few days of protests in China over the zero-Covid lockdowns are the opposite. They have been nationwide, broad-based and combine popular anger over multiple issues in a manner unheard of since Tiananmen Square in 1989.

Migrant workers protesting at the world's biggest iPhone assembly plant, in the central city of Zhengzhou, are upset with unpaid bonuses, on top of terrible health and working conditions in the locked-down factory.

Residents of Urumqi, the capital city of the Xinjiang region in China's north-west, are protesting against the government's handling of a fire in a high-rise building. At least 10 died in the fire, and residents allege they were unable to leave because of the lockdown, which has lasted for more than three months.

Uyghurs overseas point out that the severity of the lockdown in Xinjiang, where some have starved inside their homes, is yet another result of the government's heavy-handed policies towards its Uyghur Muslim minority. But the protests in Urumqi were filled with Chinese people from the Han majority who are also suffering from the lockdown. Students across the country — and the world — have organised vigils and demonstrations.

> The post-1989 generation has never before witnessed this level of popular fury

Over the weekend, protesters in Shanghai chanted "Xi Jinping, step down". The call is remarkable in how it breaks the usual norms that Chinese protesters abide by to remain safe: focusing on single issues, criticising local rather than central leaders. The post-1989 generation of students has never before witnessed this level of government failure mixed with popular fury.

Just over a month ago, before Xi was crowned party leader for an unprecedented third term, a banner of anti-government slogans hung from a bridge in Beijing was enough to cause a social media storm for the few hours it stayed up. Now videos of popular discontent are everywhere, spreading faster than the censors can stop them.

The protests have brought together a broad coalition of interests: factory workers, shopkeepers, students and urban elites, all of whom have suffered under zero-Covid in different ways — from losing wages to forgoing international business travel. Two years ago, during the spread of less contagious and more deadly strains of the virus, the zero-Covid policy was successful in preserving the freedom of the majority at the cost of the minority of locked-down cities such as Wuhan. Now the country is much more united in its suffering.

China still has no easy exit from the zero-Covid policy. In Urumqi, the local government has made an unusual climbdown, announcing it had achieved the zero-Covid target and would be lifting the lockdown in stages. But the national government will not want to be seen to be making clear concessions lest people draw the conclusion that mass protests work. Beijing could wait out the protests. But on everything else, time is against it. The healthcare system is creaking under the mass testing of millions of people every day, and people's livelihoods are eroding as the economy stalls. Yet lifting restrictions could lead to more than 1mn Covid deaths, owing to the low vaccination rate among the elderly.

The party needs a solution that looks good. The flourish of a national vaccination push — even letting in foreign mRNA vaccines — could allow Xi to declare victory over Covid. It would be a largely meaningless gesture. But it would let China move on.

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Research

Medical study casts doubt on blood clot drug

SARAH NEVILLE — LONDON

A drug to reduce blood clots, widely prescribed to Covid-19 patients after discharge from hospital, does not lessen their chances of readmission or improve survival rates, according to research that is set to change treatment protocols around the world.

The results of the UK-wide trial, led by Addenbrooke's Hospital and the University of Cambridge, were shared with the Financial Times. They found prescribing the anticoagulant Apixaban did not help patients recovering from moderate and severe Covid and in a small number of cases caused serious harm.

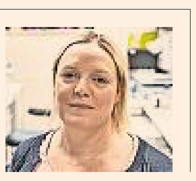
About 29.1 per cent of people given the drug ended up back in hospital or died, compared with 30.8 per cent receiving standard care.

The findings are the first to emerge from a pioneering study called HEAL-COVID — Helping to Alleviate the Longer-term consequences of Covid-19 — led by Professor Charlotte Summers, an intensive care specialist at Addenbrooke's in Cambridge.

Summers believes it is the only trial examining treatments for patients who have recovered from Covid, about one in three of whom die or are in hospital within a year.

"Having survived the ordeal of being hospitalised with Covid-19, far too many patients find themselves back in hospital, often developing longer-term complications as a result of the virus," she said.

Charlotte Summers: 'Far too many patients find themselves back in hospital'



"Until now it's been assumed that Apixaban helps patients recover after severe Covid-19 and that thinning their blood to prevent clots is beneficial," said Dr Mark Toshner, joint chief investigator for the study with Summers.

"[We hope] these results will stop this drug being needlessly prescribed to patients with Covid-19 and we can change medical practice."

The study, carried out in collaboration with Liverpool Clinical Trials Centre and Aparito, a health technology company, also showed no benefit from Apixaban in terms of the number of days patients remained alive and out of hospital 60 days after their initial discharge: for both forms of treatment the average was 59 days.

Of the 402 trial participants receiving the medicine, a small number had significant bleeding that meant they had to stop the treatment. All therapies, Summers warned, had risks "and you don't want to give people a risk for no benefit".

The trial is funded by the National Institute for Health and Care Research and the Cambridge NIHR Biomedical Research Centre. So far more than 1,100 NHS patients taken to hospital with Covid have taken part.

Evidence of the virus's continuing effects had created "an urgent need for us to find treatments that prevent this significant burden of illness and improve the lives of so many still being affected by Covid", Summers said.

The study will continue to test another drug called Atorvastatin, a widely used lipid-lowering drug, or "statin", that acts on other mechanisms of disease that are thought to be important in Covid.

Pandemic

China citizens rush to snap up ventilators

SUN YU — NEW YORK

Chinese citizens are racing to buy ventilators and oxygen machines as anxiety mounts over the threat of an uncontrolled coronavirus outbreak after Beijing signalled a plan to refine its strict zero-Covid controls.

More than a dozen online medical equipment stores told the Financial Times that sales of devices used to detect or treat symptoms of Covid-19 had shot up since November 11, when the State Council, China's cabinet, announced shorter coronavirus quarantine requirements for close contacts and international travellers.

Michael Huang, owner of a Hangzhou-based private fund, spent Rmb4,000 ($560) on a ventilator and Rmb1,000 on an oxygen machine for his 74-year-old father a few hours after Beijing announced the new rules. "Hospitals will inevitably face a shortage of beds to accommodate the influx of patients," he said. "I need to make sure my father receives treatment at home if the emergency room couldn't take him."

Data from Tencent-owned WeChat, China's biggest social media platform, showed about a 90-fold surge in searches for ventilators, oxygen machines and oximeters compared with before the State Council announcement.

Searches for ventilators were more than 80 times higher than normal on November 10, when Beijing relaxed coronavirus restrictions.

Analysts said demand for Covid-related medical equipment revealed a lack of confidence in China's state-backed health system in dealing with a nationwide coronavirus outbreak.

> 'Hospitals will inevitably face a shortage of beds to accommodate the influx of patients'

"There is a widespread belief that Chinese hospitals will be overwhelmed with virus carriers when Beijing eventually gives up zero-Covid policy," said Yanzhong Huang, a fellow at the Council on Foreign Relations in New York.

The predominant Omicron variant causes less severe illness and fewer deaths than earlier Covid-19 iterations. But almost a third of those aged over 60 have not completed a three-dose vaccination course.

In addition to shorter quarantines, the State Council ended the tracing of second-degree close contacts of positive cases. The measures were viewed by some as a tentative step towards prioritising economic growth over pandemic controls. In a muddled reaction over the past week, officials in some cities appeared to relax PCR testing and balked at citywide lockdowns to try to arrest the decline of the economy.

"There is no need to be worried," said Lu Jiahai, a public health scholar at Sun Yat-sen University and a government adviser. "A booster shot is enough to keep old people healthy when the pandemic kicks in."

Many are unconvinced. Jeffery Zhang, a Nanjing-based software engineer, paid more than Rmb9,000 for a ventilator and oxygen machine.

"Many old people will die of Covid regardless of how many vaccine shots they have received," said Zhang, "I don't want my parents to be one of them."

Additional reporting by Edward White and Nian Liu

INTERNATIONAL

Central bank

Top Fed official warns of rising jobless rate

New York president says unemployment level could hit 5% amid inflation fight

COLBY SMITH — NEW YORK

A senior Federal Reserve official has warned that the US unemployment rate could hit 5 per cent next year as the central bank presses ahead with its fight against high inflation.

John Williams, president of the Federal Reserve Bank of New York, said the central bank needed to do more to stamp out price pressures that have proven surprisingly persistent across a wide array of goods and services in the aftermath of the coronavirus pandemic.

Williams said he expected the unemployment rate to rise from its current level of 3.7 per cent to between 4.5 per cent and 5 per cent by the end of next year as the Fed takes further steps to tighten monetary policy via higher interest rates and a smaller balance sheet.

Officials have increasingly acknowledged that the effort to bring down inflation will involve economic pain after it became clear they will probably need to push their benchmark policy rate higher than expected to get inflation down to their 2 per cent target.

Most economists warn the unemployment rate could surpass 5 per cent.

Describing inflation as the "number one economic concern across the globe", Williams said rooting out price pressures was crucial to creating a healthy labour market.

"Inflation is far too high, and persistently high inflation undermines the ability of our economy to perform at its full potential," he said in prepared remarks ahead of a speech at the Economic Club of New York.

So far this year, the central bank has raised the federal funds rate from near zero to nearly 4 per cent, a level reached at a historically fast pace owing to four 0.75 percentage point rate rises in a row.

The Fed is next month expected to slow the pace of increases, moving down to a half-point increase as its policy decisions begin more directly to curb demand and slow economic activity. A rate rise of that size would lift the policy rate to a new target range of 4.25 per cent to 4.5 per cent.

According to the most recent projections published in September, most officials thought the Fed could stop its tightening campaign around this level. However chair Jay Powell recently said the so-called "terminal" rate would probably top the 4.6 per cent level that had previously been expected by most policymakers. Most officials now expect the fed funds rate to surpass 5 per cent.

After his speech, Williams said he expected the Fed to keep rates at a higher level at least until the end of next year. "I do see a point, probably in 2024, that we'll start bringing down nominal interest rates because inflation is coming down," he said.

Williams said yesterday he expected inflation, as measured by the core personal consumption expenditures index, to slow from its current level of 5.1 per cent to between 3 per cent and 3.5 per cent next year as a result of cooling global demand and fewer supply chain disruptions.

Israel politics

Netanyahu strikes deal with party that opposes LGBT rights

JAMES SHOTTER — JERUSALEM

Benjamin Netanyahu has moved a step closer to forming a new Israeli government, after striking a coalition deal with a small ultranationalist grouping known for its vehement opposition to LGBT rights.

The deal between Netanyahu's Likud and the fringe Noam party will put its leader, Avi Maoz, who supports legalising gender segregation at public events and has called for the banning of Jerusalem's Pride parade, in charge of a newly created body tasked with promoting Jewish identity.

"This is the first step towards bringing back the soul to the state," Maoz, who will become a deputy minister, said.

Maoz's support is not necessary for Netanyahu to build a new government because he is the only Noam member in the 120-seat Knesset. But his inclusion underscores the hardline nature of the emerging administration that Likud and four other parties have been negotiating to form since winning an unexpectedly comfortable majority in this month's parliamentary elections.

Netanyahu must reach coalition deals with all the parties before the new government can take office. They share broad ideological alignment, but talks have dragged on amid haggling over ministerial positions.

In recent days, there have been indications that the parties are edging closer to forming a government.

On Sunday, Bezalel Smotrich, head of the far-right Religious Zionism party, which has been locked in tough negotiations with Likud, said that "with God's help" an administration would be formed "in the coming days".

On Friday, Likud struck a deal with the extreme right Jewish Power party, under which its leader, Itamar Ben-Gvir, who was previously convicted of incitement to racism, will become Israel's minister of national security and take responsibility for the police force.

The Palestinian Authority said the deal would have "potentially catastrophic results" for the Israeli-Palestinian conflict.

Netanyahu and Ben-Gvir have made a series of pledges, including a law to legalise settlement outposts in the occupied West Bank, and to allow the shooting of thieves caught stealing weaponry from army bases.

Netanyahu had insisted the new government would not make changes to LGBT rights in Israel. But Likud's agreement with Noam drew fierce criticism from LGBT rights activists and Netanyahu's political opponents.

Outgoing prime minister, Yair Lapid, called the deal "nothing short of insanity". "With every passing day, it seems that, rather than a fully rightwing government, what is being formed here is a fully crazy government," he wrote on Twitter.

Noam was founded in 2019 and quickly made headlines for a campaign under the motto "Israel chooses to be normal" that attacked LGBT rights. It has also staked out hardline positions on women's rights and the position of Israel's Arab minority. LGBT rights group The Aguda described Maoz's appointment as a "low point".

Middle East. Sport

World Cup losses and triumphs divide Iranians

Anti-regime protesters and hardliners are split when it comes to supporting the team

NAJMEH BOZORGMEHR — TEHRAN

Club football divides families around the world but the national team is usually a source of unity, particularly during a World Cup.

That is not the case in Iran. Despite being a football-loving nation, the team's participation in the tournament in Qatar has accentuated splits in the country between the regime and its opponents, who have been staging large anti-government protests across the country for more than two months.

Opposition supporters see the team — one of the country's best and ranked 20th in the world — as traitors for playing under the Islamic republic's flag and meeting President Ebrahim Raisi before they left for Doha. Pictures showed some players bowing to the hardline politician.

Soheila, a retired nurse in Tehran who supports the anti-regime protests, wants Iran to lose badly, even when they play their government's sworn enemy, the US, today in a match with the winner guaranteed a place in the knockout stages. A draw might be enough to see Iran progress for the first time.

While her daughter, Sahar, shares her views, Soheila is horrified that her son, Hamed, backs the team.

"I just wondered where I had made that huge mistake in bringing him up. How could he back the mullahs' team?" she said. "When [goalkeeper Alireza] Beiranvand had his nose injured and blood on his face in the eighth minute against England, I just thanked God and hoped all team members come back broken for breaking Iranians' hearts. This is how bitter and angry a nurse like me has become."

Government opponents regard any triumph as a betrayal of the protests that started in mid-September after 22-year-old Kurdish Iranian woman Mahsa Amini died in police custody after having been arrested for failing to fully observe the Islamic dress code.

The demonstrations have evolved into one of the longest and biggest anti-government protest movements since the 1979 Islamic revolution, claiming at least 305 lives, including 41 children, according to Amnesty International.

Women's rights: a supporter makes her feelings clear before the Wales game. Below, Iran celebrate a historic win
Charlotte Bruneau/Reuters; Pavel Golovkin/AP

"How could football players be so indifferent to so many killings in their country?" said Sahar, a yoga trainer who joins the protests. "If they had not gone, the world would have paid more attention to atrocities in Iran."

Koroush Mohammadi, head of Iran's Sociological Association, said such reactions showed the level of dissent in society. "When people think their demands are not met in any field, football is also seen as part of the political establishment and players as complicit."

The team did win opposition plaudits for refusing to sing the national anthem before their opening match against England. And when they lost that game 6-2, the worst defeat in the country's World Cup history, cheers could be heard from Tehran apartments while some people even carried British flags in the streets.

That mood was punctured after Iran's historic 2-0 win in their second match against Wales on Friday, their first victory against a European team.

Iran's hardliners poured on to the streets to celebrate, including thanking the team for singing the national anthem before the match, even though some said it was halfhearted.

The riot police and security forces, who have been stationed in the capital city's main squares since September, waved the Islamic republic's flag and danced to loud pop music. They were joined by conservatives.

Samira, a 22-year-old, said she went out after the Wales match even though she and her friends refused to wear the hijab. "Security forces came to us without any objection to our [lack of] hijab and wondered why we didn't dance. We said: 'Since when is dancing in public even allowed?' We felt disgusted by the way they exploited football." Protesters were also infuriated by the team's celebrations — ignoring calls on social media not to do so.

> 'If they had not gone, the world would have paid more attention to atrocities in Iran'

For the Iranian opposition, their heroes are a handful of former players such as Ali Daei. The country's record scorer said he was invited by Fifa, world football's governing body, to Qatar but that he preferred to stay at home. The arrest of Voria Ghafouri, a famous player in the domestic league, last week on accusations that he had undermined the national team on his Instagram account, added to his popularity.

The domestic battles took an international turn at the weekend when the US Soccer federation briefly displayed Iran's national green, white and red flag on social media without the Islamic republic emblem. The intent was to show "support for the women in Iran fighting for basic human rights", media officer Michael Kammarman said.

For the opposition, such gestures demonstrate that politics and sport are not separate. "If Russia was deprived of [participating in] the World Cup over Ukraine, Iran had to be deprived, too," Sahar said. "The world doesn't care about us. I have never felt this lonely."

Old rivals Wales plan to kick England's hopes of glory into touch

SIMON KUPER — DOHA

The footballers locked in their Qatari hotel rooms will be spending many happy hours on their game consoles. If we think of the World Cup as a video game, England are about to complete level one: qualifying for the knockout rounds. But they have evolved beyond considering that an achievement.

This tournament comes at the optimal point in the team's lifecycle. About half the players likely to kick off today's last group match against Wales featured in the World Cup semi-final defeat against Croatia in 2018; about nine played last year's lost Euro 2020 final against Italy. Of England's regulars here, only right-back Kieran Trippier, 32, has passed 30. Few teams get three tournaments together, and the objective in Qatar is clear.

A third long run ending in plucky defeat won't satisfy anyone. England haven't shone here like the leading contenders France and Brazil, but manager Gareth Southgate has done enough research to write a PhD on how teams win tournaments, and shining doesn't come into it. So what do England need to reach level five — lifting the trophy on December 18? And for those of us who have witnessed their disasters from St Etienne to São Paulo, how are they most likely to trip up?

With four points from two games, England will reach the knockout rounds even if they lose to Wales by three goals. Still, given English football history, deflating embarrassment is always an option. To avoid it, they must stop the match from turning into an old-style British derby, replete with aerial contests and last-ditch tackles.

Wales — the sort of side familiar to anyone who has watched lower-division English football or, indeed, has seen Australia play in Qatar — would love that. England must make their superior technique count by controlling the ball. Wales have reached the end of their cycle, which peaked in the semi-final of Euro 2016 when Gareth Bale and Aaron Ramsey were in their prime.

Only their singing fans have lit up Qatar. I have watched the Welsh against both the US and Iran, and struggle even to identify any attacking weapon or strategy. England should defend near the halfway line as usual, to keep what remains of the once great Bale, now 33, out of shooting range.

In the second round this weekend, England will probably encounter an unspectacular, well-organised defensive side — either Ecuador or the Netherlands. Ecuador are unbeaten in nine games, and *Oranje* in 17. England's greater individual quality might not prove decisive.

Yet both those teams, and Wales, suit England in one way: none seeks much possession. England tend to fare worst against skilled, possession-oriented sides that wear them down with constant attacks: Belgium and Croatia at the last World Cup; Italy at Euro 2020. As England showed against the USA on Friday, they don't have much of a pressing game that can win the ball back.

> Still, given English football history, deflating embarrassment is always an option

Southgate's strategy — which mostly worked against the USA — is to keep defensive shape and give little away. It's not pretty, but England's calculation is that with their aerial strength at set pieces and Harry Kane's nose for goal, a couple of chances should be enough.

Southgate is sometimes described as "loyal" to his regular players. More accurately, he believes that settled teams with strong on-field understanding do better. That's why he has constructed a "Team England", almost like a club side, and will probably ignore pressure to drop the uninspiring Raheem Sterling and Mason Mount.

Sterling has 20 goals for England — an important metric for Southgate who values it more highly than club form — and Mount is a player appreciated by coaches rather than fans. A coach's sone himself, he has a quality rare among footballers: during a game he can think about the collective rather than just his own role. Mount will continue to close off opponents' passing lines, just as Sterling will run on to flick-ons from Kane.

If England do progress, one worry will be how Harry Maguire — an impressive passer from the back in Qatar — will cope against mobile forwards such as Brazil's Raphinha, France's Ousmane Dembelé and Germany's Jamal Musiala. Southgate may expand his central defence from two men to three, adding Kyle Walker, now back from injury.

England don't aim to rise above themselves in some heroic Nelsonian struggle. The bet is that being their predictable Southgateian selves will be enough.

FTX fallout

ECB's McCaul backs global crypto rules harmonisation

AKILA QUINIO AND JOSHUA FRANKLIN
LONDON

A member of the European Central Bank's supervisory board has called for global crypto regulation to be harmonised to prevent future crises such as the collapse of FTX.

"I would call for great harmonisation among various regulatory frameworks in place so that gaps don't occur that are missed by regulators," Elizabeth McCaul told the Financial Times Crypto and Digital Assets Summit yesterday.

The central banker said that the collapse of FTX had been "quite a wake-up call" and that communication between regulators was needed.

McCaul said the EU's upcoming Markets in Crypto-Assets Regulation would have mitigated some of the risk linked to FTX's collapse by requiring that the assets of clients were separated from funds, along with evidence of good management. But she added that she did not believe the legislation would have been enough to prevent the collapse because the same oversight did not exist elsewhere. Such "gaps" between regulations allowed for accidents such as FTX's collapse to occur.

"I've lived through many crises and one theme always comes up . . . that's where there are gaps in framework and oversight," she said.

Meanwhile, Cynthia Lummis, a US senator pushing for greater federal regulation of cryptocurrencies, called for the collapse of FTX to be a catalyst for lawmakers in Congress to start paying proper attention to the sector.

"I hope [FTX's collapse] highlighted with members of Congress who have not taken the time to learn more about this asset class, that it's time for them to learn more about it so we can engage in proper regulation," Lummis said.

The senator was an early champion of cryptocurrencies, buying her first bitcoin almost a decade ago. Customers like herself, who are not actively trading crypto do not require more oversight, she said. However, there should be stricter rules around companies such as FTX that trade and have custody of clients' assets.

superhero.
Agriculture – which now claims 50% of all habitable land on earth – must return 20% of land to nature if we are to build a sustainable food future.
By investing in modern farming solutions, like regenerative agriculture, there is a path forward to a new food system.
One that can nourish a growing population whilst restoring the biodiversity of the soil that supports it.
Find out more about our New Food Systems Strategy at LombardOdier.com
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Property soufflé Pundits once again project a UK real estate market collapse as interest rates rise and incomes deteriorate ➔ LEX

Companies & Markets

H2O claims that alleged rules breaches were 'technical'

- French watchdog seeks €75mn fine
- Group plays down Windhorst saga

ROBERT SMITH AND CYNTHIA O'MURCHU
LONDON

H2O Asset Management has sought to reassure clients that France's financial regulator has not accused it of committing fraud, describing as "technical" the alleged breaches in rules that led the watchdog to recommend the largest fine in its history.

The Autorité des Marchés Financiers on Friday recommended a record €75mn fine for H2O and a 10-year ban from the investment industry for its chief executive Bruno Crastes, for what it described as "grave" rule breaches related to the firm's extensive investments in illiquid bonds tied to German financier Lars Windhorst. The watchdog is also seeking to levy a €15mn fine on Crastes, and a €3mn penalty for the asset manager's chief investment officer, Vincent Chailley.

> In a letter to clients, H2O said it 'vigorously contested' the bulk of the regulator's findings

In a letter to clients sent yesterday, H2O said it "vigorously contested" the bulk of the regulator's findings against it, which were made public at a hearing in Paris on Friday.

It described the alleged infractions as concerning "essentially technical matters". H2O also told clients that it was "important to underline the complete absence of any fraud or intentional error" on the part of the firm and its two co-founders, Crastes and Chailley.

The AMF's enforcement committee, an independent panel of judges and investment professionals, is expected to issue final penalties in the coming weeks.

H2O told clients that while it deemed the proposed sanctions "unfair and disproportionate", it had already "set aside a reserve covering the maximum amount foreseen in this type of procedure".

Once a well-respected money manager that oversaw €30bn of assets, H2O has lurched from crisis to crisis since the Financial Times revealed the scale of its investments linked to Windhorst in 2019.

Windhorst shot to fame in Germany as a teenage entrepreneur in the mid-1990s, but endured a bruising downfall that culminated in the financier receiving a suspended jail sentence for breach of trust in 2010.

During Friday's hearing, Crastes said H2O did not uncover any information about Windhorst's criminal conviction during due diligence it carried out ahead of first investing in bonds linked to the financier.

The H2O chief also defended a series of "buy and sell back" trades the regulator had criticised, which his firm employed to manage its exposure to the bonds in the wake of the FT's initial report in 2019.

In executing these trades primarily with a small brokerage with ties to Windhorst, H2O breached rules restricting the amount of exposure it could have to a firm without a banking licence.

Crastes told the hearing the firm had mistakenly believed that its counterparty had a banking licence, however, and sought to remedy the situation when it discovered its error.

H2O is also under investigation by the UK's Financial Conduct Authority and is facing litigation from clients who have had €1.6bn of their savings trapped for more than two years.

Gérard Maurin, president of the investor group Collectif Porteurs H2O, praised the AMF's proposed sanctions and said his group would seek "full compensation" through the courts.

Stake sale Paris Saint-Germain's Qatari owners line up shot at record €4bn valuation

Kylian Mbappécelebrates after scoring for PSG against Auxerre earlier this month — Glenn Gervot/Icon Sportswire via Getty Images

JOSH NOBLE — DOHA

The Qatari owners of Paris Saint-Germain are targeting a valuation of more than €4bn in talks with potential investors that would set a new benchmark for a football club and boost expectations for others currently on the market.

The French champions have been in discussions with several investors over a stake sale of up to 15 per cent, including at least two US-based funds.

Nasser al-Khelaifi, PSG president, said that talks were continuing based on a valuation of "over €4bn", although completing any deal could still "take months". A figure of more than €4bn (£3.44bn) for the club would surpass the £2.5bn paid by a US-led consortium this year for English Premier League side Chelsea FC.

It would also boost expectations around other clubs, with Liverpool, Manchester United and Inter Milan looking for investors, or possibly sales.

Valuations for sports teams have soared in the past year, thanks largely to a boom in the price of live broadcast rights. Billions of dollars have poured into European football, Indian cricket and various US sports, much of it from institutional investors.

Al-Khelaifi insisted that the current talks over PSG were not a sign of Qatar losing its appetite for football now that the World Cup had finally arrived, but rather the chance to bring in outside expertise to help expand the business via strategic investment.

"PSG is an investment in sport — we're proud of the club and our fans," said Al-Khelaifi. "We have a long-term project here."

The club was also "looking seriously at different options" for building a new stadium in Paris if it could not agree a deal to buy its current home from the government. "We need a new stadium. We need to own the stadium," said Al-Khelaifi.

If a stake sale is concluded, it would be a significant return for PSG's Qatari owners, who bought the club in 2011 for about €70mn. Since then, they have spent about €1.6bn on players, according to Transfermarkt.

In 2017, PSG stunned the football world by signing Brazilian forward Neymar from Barcelona for €222mn — a record for a player that has yet to be broken. The club added Lionel Messi, considered by many to be the greatest player of all time, on a free transfer last summer, joining Kylian Mbappé, the sport's rising superstar.

PSG has the sixth-highest revenue among football clubs in Europe, according to Deloitte, on a par with top Premier League clubs. The French team earned €556mn last year, compared with €558mn at Manchester United and €550mn at Liverpool.

See Lex

Ireland fines Meta €265mn over privacy concerns

JAVIER ESPINOZA — BRUSSELS
CRISTINA CRIDDLE — LONDON

Facebook and Instagram parent Meta has been fined €265mn by Ireland's privacy watchdog over its handling of user data, bringing the total amount the technology giant has been fined by European regulators to nearly €1bn.

The fine, revealed yesterday by the Irish Data Protection Commission, ends an inquiry launched last year when details of more than 500mn Facebook and Instagram users were published online.

Meta has often been in the crosshairs of privacy regulators around the world, with Ireland's data watchdog often taking the lead in Europe as the company's European headquarters are in Dublin.

The latest punishment is a further blow to Meta which, at the beginning of this month, dismissed more than 11,000 staff as it restructured following a fall in revenues and fierce competition from rivals such as TikTok. Meta's net income fell to $6.69bn from $10.39bn last year.

The Irish fine relates to a tool designed to help users find friends and people they know by importing contacts from their phones on to the Facebook or Instagram app.

The personal data of 533mn users across 106 countries were published on a hacking forum in 2019, including names, locations and some email addresses. Facebook subsequently fixed the vulnerability on this feature, where data could be collected by external parties through a process called scraping.

Meta said it was reviewing the decision carefully and "protecting the privacy and security of people's data is fundamental to how our business works".

It added: "Unauthorised data scraping is unacceptable and against our rules and we will continue working with our peers on this industry challenge."

The latest sanction brings the total Meta has been fined in Ireland to roughly €1bn, including €225mn against its messaging service WhatsApp for failing to enforce transparency requirements under EU law, and a €405mn fine against Instagram for breaching data laws and failing to protect children's data in particular.

The fines are part of the enforcement of the General Data Protection Regulation, an EU law that was seen as setting a global standard for online privacy when it came into force four years ago. Companies face fines of up to 4 per cent of global turnover if they break the rules.

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Board fight between Politan and Masimo has cold war echoes

INSIDE BUSINESS
FINANCE
Sujeet Indap

Is Quentin Koffey Wall Street's Manchurian Candidate? In the cold war classic film, an American soldier is brainwashed by a hostile foreign power into unwittingly bringing down the US government.

Koffey is a well-known activist investor who, after stints at Elliott Management and DE Shaw, now has his own hedge fund, Politan Capital Management. He is seeking a board seat at Masimo Corp, a California-based maker of pulse oximeters with an enterprise valuation of $8bn.

Koffey and Masimo are at odds about the company's direction. Its share price is down more than 50 per cent this year after a poorly received acquisition. Koffey seeking election to the Masimo board is itself nothing extraordinary. These clashes happen dozens of times every year in the US. Yet the Politan/Masimo fight has captivated Wall Street for a particular reason.

Masimo does not think it should be so straightforward for Koffey to stand for election. It is insisting the investor disclose the identities of his largest fund backers. Masimo has even speculated in legal filings that Koffey just may be a "Trojan horse" representing "sovereign entities that do not respect — and have attempted to steal — intellectual property belonging to US companies".

The Masimo board has been careful not to explicitly accuse Koffey of malign motives. Rather, they believe Masimo shareholders deserve to know who is behind Politan before allowing Koffey to seek a board seat. Koffey disagrees, saying Masimo's information requirements needed to stand for election are both irrelevant and legally impermissible. He is asking a Delaware court to invalidate the requirements.

US companies with the court's backing have increasingly been free to create hoops for dissident investors to jump through before waging proxy contests. But the set of requirements Masimo is seeking to impose has the investment and legal community wondering if it has pushed the envelope too far.

The Politan/Masimo fight has erupted at a key moment. The US Securities and Exchange Commission has just rolled out a so-called "universal proxy card" that makes it easier and cheaper for shareholders to run against company-backed directors. The worry for companies is that now marginal or unsavoury shareholders can seize upon the universal proxy to snatch board representation.

> The worry for companies is that shareholders can seize upon the universal proxy to snatch board representation

Corporate lawyers are advising incumbent directors that they can impose some order on board elections via "advance notice" provisions in company bylaws. These provisions tell dissident shareholders by what date they need to submit their board nominations and what kind of biographical and background information they must provide to be eligible for ballot placement.

Advance notice provisions tended to be mild. In some instances, however, information shared would go on to reveal a director nominee had previously unknown ties that could be sinister. Still, companies figured out that advance notice provisions could be deployed to frustrate or even thwart dissident shareholders. Courts generally deferred to companies that chose to enforce technical rules around submitting nominations that kept out dissident nominees.

Masimo may now be overplaying its hand. The worry for companies and corporate lawyers not involved in this dispute is that Masimo's advance notice requirements will be judged to have gone too far and that the Delaware court may finally curtail advance notice provisions as a general matter.

Koffey says that Politan has confidentiality obligations to its backers and regardless, those backers have totally passive stakes with no control over his decision-making. Besides disclosing the identities of Politan's investors, Masimo is demanding information on past and future Politan activist campaigns as well as details of investment holdings of these backers and even their household members with the theory that those details could show conflicts of interest.

"The bylaws protect against a 'Trojan Horse' situation where a nominating stockholder and its director nominee are acting on behalf of — and potentially sharing confidential information with — undisclosed actors who do not have Masimo's best interests in mind," Masimo wrote in its court filings.

It may be that Koffey has bad ideas and bad intentions for Masimo, as the company's board worries. But the question really is why does the board get to cut off the debate on both Koffey's ideas for the company, as well as whatever shortcomings he brings, without permitting shareholders to decide those questions for themselves.

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Oil & gas

Shell buys biogas producer for €1.9bn

Nature Energy deal is part of efforts to diversify and reduce fossil fuel reliance

TOM WILSON

Shell has agreed to buy Europe's largest biogas producer for €1.9bn in the UK oil major's latest effort to diversify its energy portfolio and reduce dependence on fossil fuels.

The deal for Denmark's Nature Energy is a sign of growing interest in renewable natural gas after BP last month announced the planned $4.1bn acquisition of Archaea Energy, a US-listed biogas producer.

Nature Energy, founded in 1979 as a natural gas distributor, established its first biogas plant in Denmark in 2015. It has 14 plants and produces about 3,000 barrels of oil equivalent a day of biomethane.

Shell produced roughly 3.2mn boe/d of crude and natural gas last year.

Huibert Vigeveno, Shell's downstream director, said energy transition policies and customer preferences signalled "strong growth in demand [for biogas] in the years ahead".

Shell would use the acquisition to build out a global business for the fuel.

He said: "Acquiring Nature Energy will add a European production platform and growth pipeline to Shell's existing RNG projects in the United States. We will use this acquisition to build an integrated RNG value chain at global scale."

Biogas is produced primarily using waste from crops, animal manure and

> A transition is under way from fragmented cottage industry to operations that are at industrial scale

industrial activity through "anaerobic digestion", a process by which bacteria break down organic matter in an oxygen-free environment. This is purified into biomethane by extracting carbon dioxide, and can be treated identically to natural gas in the pipeline network.

The sector is attempting a transition from a fragmented cottage industry to industrial-scale operations. Shell started its first biomethane facility in the US last September, and is building three more in North America.

In Europe, TotalEnergies has partnered with Veolia to produce biomethane from waste water, while Engie and container shipping group CMA CGM in June agreed to co-invest in a biomethane plant in the French city of Le Havre.

The EU is pushing for a rapid increase in biogas production as the bloc seeks to reduce its reliance on natural gas from Russia. It has doubled its biomethane production target to 35 bcm by 2030.

Nature Energy chief executive Ole Hvelplund said the company was excited about its potential "to help address both the current energy insecurity, as well as the longer-term potential for biomethane capacity set out in the REPowerEU plan". However, in July he said it would take at least two years to significantly ramp up supply given the time required to construct plants.

The company and its 420 employees in Europe and North America would initially operate as a Shell subsidiary under its existing Nature Energy brand, Shell said.

The acquisition from current shareholders Davidson Kempner Capital management, Pioneer Point Partners and Sampension is expected to close in the first quarter of 2023, subject to regulatory approvals.

Industrials

Deripaska trial delayed after lawyers query UK sanctions cap

JANE CROFT — LONDON

An attempt to imprison or fine Oleg Deripaska for alleged contempt of court has been delayed after London's High Court heard lawyers set to represent the Russian tycoon had raised the prospect of his legal fees exceeding the £500,000 limit imposed by the UK sanctions regime.

Deripaska, who founded metals group EN+, has been the subject of US government sanctions since 2018 over an allegedly close relationship with the Kremlin, although in 2019 he described such allegations as "filthy lies".

The UK government imposed sanctions on Deripaska in March after Russia invaded Ukraine, calling him a "pro-Kremlin oligarch".

The High Court was due yesterday to hear a committal application brought against Deripaska by Vladimir Chernukhin, the husband of a Conservative party donor and former deputy finance minister under President Vladimir Putin, who is now based in Britain.

Chernukhin alleges that Deripaska breached legal undertakings after a high-profile legal dispute between the two over the ownership of land in Moscow. He has applied for Deripaska to face contempt of court trial proceedings, which, if successful, could lead to the oligarch being jailed or fined.

But the High Court was told yesterday that Deripaska was not present or legally represented at the hearing — although he has lined up law firm Peters & Peters to act for him in the case.

A licence has now been granted by the Treasury's Office of Financial Sanctions Implementation, allowing payment of his legal expenses.

The government has since February placed 1,200 individuals and entities under sanctions as part of the Russia Sanctions regime, but OFSI is empowered to issue licences so that sanctioned individuals' legal fees can be paid.

Richard Lissack KC, representing Chernukhin, read the court letters from Peters & Peters, which said the £500,000 limit laid down by OFSI might not be sufficient for Deripaska's forthcoming three-day trial.

The letters also questioned whether a separate licence might be needed from the US-based Office of Foreign Assets Control because the payments could require a bank with a US connection.

Lissack told the court the £500,000 limit was a "handsome war chest" to pay any legal fees and that the amount was "sufficient to enable Mr Deripaska to have a fair trial and defend himself".

Mr Justice Knowles said he would delay the trial, due to start this week, until next March. Peters & Peters and Deripaska did not immediately respond to requests for comment.

Separately, the Solicitors Regulation Authority, which oversees solicitors working in England and Wales, yesterday said it was concerned Russian oligarchs and other wealthy litigants had used so-called strategic lawsuits against public participation to silence critics.

Ministers have promised legislation to crack down on wealthy individuals or companies seeking to use Slapps, which enable claimants to evade scrutiny and financially exhaust opponents raising issues of public importance. "Proceedings must be pursued properly, and that means making sure that representing your client's interests does not override wider public interest obligations and duties to the courts," said the SRA.

Aerospace & defence

Rolls-Royce in aviation's first hydrogen engine test

SYLVIA PFEIFER — LONDON

British engineer Rolls-Royce has successfully used hydrogen instead of conventional jet fuel to power a modern aircraft engine in a world first for the aviation industry, according to the company.

The ground test, which took place at a UK government test site at Boscombe Down in England, used green hydrogen generated by wind and tidal power from the Orkney Islands in Scotland.

Rolls-Royce used a converted AE 2100-A turboprop engine that powers civil and military aircraft to conduct the test in partnership with easyJet.

It marks another step in the industry's attempts to prove that hydrogen could play a viable role to help companies reduce harmful carbon emissions that contribute to climate change.

The Race to Zero pledge backed by the UN is committed to achieving net zero carbon emissions by 2050 and airlines are pushing to use more sustainable fuel as an alternative to petroleum-based jet fuel.

Flying is one of the most difficult industries to decarbonise and technologies such as electricity or hydrogen-powered aircraft are still years from carrying planes over long distances.

Airbus plans to use a superjumbo A380 to test hydrogen-powered jet engines as part of a plan to bring a zero emissions aircraft into service by 2035.

The Toulouse-based group is working with CFM International, a joint venture between France's Safran and General Electric of the US, to develop an engine that can run on hydrogen.

The Rolls-Royce led trial, although not involving flying an aircraft, is part of a hydrogen demonstration programme launched in the summer by the FTSE 100 group in partnership with easyJet after research showed there was potential for hydrogen-powered aircraft.

The two companies plan to move on to a second set of tests, which will in turn lead up to a full-scale ground trial of a Rolls-Royce Pearl 15 business jet engine.

Grazia Vittadini, Rolls-Royce chief technology officer, said the test was an "exciting milestone".

She added: "We are pushing the boundaries to discover the zero carbon possibilities of hydrogen, which could help reshape the future of flight."

Sales cycle

Canyon eyes 'SUV' future for bikes

Canyon is planning new models for urban living, most of them with a motor and a battery, over the next three years

One of Europe's biggest bicycle makers wants to convert motorists with cargo bikes and what it calls the cycling equivalent of an SUV as it aims to double sales of city bikes by 2025.

Canyon Bicycles — based in western Germany and worth €858mn, according to its majority shareholder Groep Brussel Lambert — is known for fast, lightweight road and mountain bikes, and generated €475mn in sales last year.

But Nicolas de Ros Wallace, a former Nike manager who became chief executive of Canyon in March, now sees sturdier models better suited for shopping and other city dwellers' needs as "a key priority". He wants to more than double the share of urban bikes among Canyon's total sales to 20 per cent by 2025.

"We see huge growth in urban cycling", de Ros Wallace told the Financial Times, pointing to "all the cities moving into [sustainable] mobility and building bike lanes" as well as rising fuel costs and people's desire to live more active lifestyles.

Since the pandemic began, cycling has been booming in the western world, with sales of conventional and electric bicycles in Europe rising 7.5 per cent to a record €19.7bn last year, according to the Confederation of the European Bicycle Industry.

"If you live in a city and want to get from A to B, you don't need a car," said de Ros Wallace, arguing that even a premium bike was "cheaper, more sustainable, you don't pay insurance and you can park it anywhere".

Since April, Canyon has been selling a model that the chief executive said "is like [an] urban SUV" for city dwellers "who love cycling". At a retail price starting at €4,199, the Pathlite SUV — a nod to sports utility vehicles, which are popular among motorists but seen as a safety risk by cycling activists — comes with wide tyres for poor road surfaces, a powerful motor and a rack for carrying luggage.

Canyon is planning other new models for urban living, most of them with a motor and a battery, over the next three years, including a cargo bike for people "who want to carry [their] kids or their surfboard", said de Ros Wallace. The group is also investing in digital apps that can advise on cycle routes, safety and maintenance.

Canyon's growth over the past few years has been hindered by a crippling shortage of key bike parts, caused by rising demand and problems in global supply chains. Many bikes on Canyon's website are sold out, with some popular models becoming available only between April and July 2023.

While the shortages were slowly improving, de Ros Wallace expected that the company would need one more year to fix the issue fully. "We are having weekly conversations with [key suppliers] and it's getting better, but not at the speed that we would love to [see]," he said.

In the first nine months of 2022, Canyon sales rose 36 per cent to €503mn compared with a year earlier. Earnings before interest, tax, depreciation and amortisation rose a quarter, bringing the ebitda margin to 15.2 per cent of sales, according to GBL's half-year report.

Canyon this year won the backing of basketball player LeBron James, who led a €30mn funding round.

Olaf Storbeck

Retail

Casino to cut stake in Brazilian chain Assai

LEILA ABBOUD — PARIS

French supermarket group Casino is offloading a chunk of its 41 per cent stake in Brazilian peer Assai as part of its efforts to cut down debt.

The retailer, led by French businessman Jean-Charles Naouri, is seeking to sell assets worth €4.5bn by the end of 2023, in a bid to cut its high leverage.

The announcement yesterday that it will divest 140.8mn shares in Assai, representing 10.4 per cent of the Brazilian company's share capital, will further bolster its efforts.

Based on Assai's closing share price on Friday, the share sale is worth about $500mn, although the exact proceeds for Casino will depend on the final price and volumes achieved in the secondary offering.

The retailer said yesterday that it could sell a further 49.5mn shares, or 3.7 per cent, depending on demand.

Casino's shares rose as much as 4 per cent before paring back gains and ending the day broadly flat in Paris.

The group, which owns supermarket chains Monoprix, Franprix and Geant, has been closely watched by credit rating agencies because of its high debt burden and weak cash flows.

Supermarket chains in France have to contend with soaring inflation and consumers trading down to cheaper products and buying less. Analysts have said that this is particularly worrying for Casino because it cannot afford to cut prices as much as competitors, while its Monoprix chain's premium positioning could make it vulnerable in a downturn.

In October S&P ratings downgraded Casino's rating from B to triple C plus, and warned that its "ability to meet its future debt maturities is dependent upon favourable business, financial, and economic conditions".

Casino appointed Itaú BBA, BTG Pactual, JPMorgan, Banco Bradesco, Banco Safra and Santander to work on the divestment. In June, it sold a majority stake in renewable energy business GreenYellow.

In 2019, Naouri put the holding companies through which he controls Casino — Rallye, Finatis and Foncière Euris — into court-protected debt restructuring.

Known as a *procedure de sauvegarde* under French law, it is similar to a bankruptcy proceeding and gives Naouri a decade to pay down debts.

He also got a two-year extension on payments because of the Covid-19 pandemic.

Casino itself also remains heavily indebted, with a net debt-to-ebitda ratio of about 7.2 times, according to Fitch Ratings. This is expected to come down to about 6 times next year thanks to asset sales.

Shares are down by about 50 per cent this year to €11.10 per share, lagging behind larger French rival Carrefour, whose stock is up about 2 per cent.

Banks

Barclays chief to be treated for lymphoma

STEPHEN MORRIS AND OLIVER RALPH
LONDON

Barclays has announced that CS Venkatakrishnan, chief executive, has been diagnosed with non-Hodgkin's lymphoma.

In a letter to staff yesterday, Venkatakrishnan wrote: "The doctors have advised that my prognosis is excellent, and my condition is curable with their prescribed regimen. This is likely to last 12 to 16 weeks."

He will be treated at the Memorial Sloan Kettering Cancer Center in New York.

"During this period, the company will run normally, and I will continue to be actively engaged in managing it. However, I will have to work from home for some periods and not be able to travel."

The next most senior executives at the lender are Paul Compton, head of the investment bank, who joined Barclays in 2016 alongside Venkatakrishnan from JPMorgan Chase, and finance director Anna Cross, who sits on the board. Barclays' chair is veteran Rothschild banker Nigel Higgins.

Other high-profile executives have undergone successful cancer treatment while in their roles, notably Venkatakrishnan's former boss Jamie Dimon.

C.S. Venkatakrishnan will remain hands-on but will work from home and be unable to travel for a period of up to four months

The JPMorgan chief recovered from throat cancer in 2014 and had emergency heart surgery in 2020. Lloyd Blankfein continued to run Goldman Sachs while having chemotherapy for a lymphoma in 2015.

"Venkat" took over from Jes Staley in November last year after his predecessor was forced to step down amid a UK regulatory probe into his past relationship with Jeffery Epstein. Staley is appealing against the decision.

Venkatakrishnan's first year in charge has been turbulent, with the Ukraine war setting off an energy crisis and inflation combining with the UK's disastrous "mini"-Budget. Barclays also paid $361mn to settle charges that a clerical error led the bank to offer for sale $17.7bn of structured financial products that it was not permitted to trade.

The investment bank has performed well, doubling its fixed-income trading revenues in the third quarter. The unit had been the target of an activist campaign by Edward Bramson, who admitted defeat and sold out of the stock last year. The UK consumer unit has also benefited from rising interest rates.

Venkatakrishnan said of the lymphoma that "the good news is that the matter has been detected early, with scans and biopsies confirming it to be very localised".

Eisai aims to silence critics after success of Alzheimer's drug trial

Japanese pharma group to lay out data on lecanemab after study showed it slowed progression

KANA INAGAKI — TOKYO
JAMIE SMYTH — NEW YORK

After working on a drug to fight Alzheimer's for almost four decades, Haruo Naito, chief executive of Eisai, is feeling vindicated. The Japanese business and its partner Biogen are to publish detailed information today about their drug lecanemab, after results of a late-stage clinical trial showed it slowed progression of the disease.

Naito, grandson of Eisai's founder, said he was convinced that the presentation at an Alzheimer's conference in San Francisco would put to rest an enduring and at times acrimonious debate about what causes the illness.

Initial results published by Eisai in September raised hopes for a treatment of a disease that pharma groups have spent billions of dollars over several decades researching only to be disappointed by repeated failures. There has been no big breakthrough since Eisai's Aricept, the most widely prescribed treatment for Alzheimer's, became available in the US in 1997.

The amyloid hypothesis holds that Alzheimer's is primarily caused by build-up in the brain of beta amyloid. But drug trials — including the latest by Roche — have failed to prove that clearing the plaques can slow the cognitive decline rate. Roche's gantenerumab and lecanemab, co-developed by Eisai and Biogen, are monoclonal antibody treatments based on the hypothesis. But unlike other drugs being developed, lecanemab targets amyloid-beta aggregates called protofibrils. "I think it is safe to say that the results have proved that the condition will improve by removing the amyloid-beta aggregates," Naito said. "With lecanemab as a beginning, we are feeling increasingly confident that we can develop the next Alzheimer's drugs, one after the other."

If the theory were proved, Naito said lecanemab could open the path to research on other neurodegenerative diseases. It would breathe new life into rival amyloid-reducing drugs in development such as donanemab, being developed by Eli Lilly.

Investors are betting that Eisai, a $20bn group that is still little known outside Japan, can succeed where many larger groups have failed. Its stock has risen 60 per cent since it published lecanemab's topline results in September, when BMO Capital Markets analysts concluded that the trial was a first "clean win" in the Alzheimer's battle.

Evan Seigerman, BMO analyst, said that depending on the level of access granted by Medicare and Medicaid of the US, as well as other countries' healthcare schemes, "we could see end-user peak sales at more than $13bn".

But some scientists warned against reading too much into topline results, which showed that lecanemab cut the rate of cognitive decline in early-stage patients by 27 per cent compared with a placebo after 18 months. They said it was critical that Eisai and Biogen present full trial data and publish findings in a peer-reviewed journal to rebuild confidence in amyloid-targeting Alzheimer's drugs after failures.

The botched launch last year of aducanumab — the first amyloid-clearing drug to win approval and the first new treatment for the disease in almost two decades — has heightened concerns. Questions over its effectiveness and the robustness of two late-stage trials, as well as a launch price of $56,000 a year, have led clinicians and US payment authorities to shun a treatment that was co-developed by Eisai and Biogen.

"The lecanemab study is the first trial to achieve a robust, statistically significant difference between drug and placebo, so that's a huge achievement," said Rob Howard, professor of old-age psychiatry at University College London. But the clinical significance of the slowdown in progress of Alzheimer's caused by lecanemab was "trivial" in terms of noticeable change in a patient, raising questions over whether the drug was worthwhile given potential side-effects that include brain bleeds.

Medical authorities are probing the deaths of two patients during lecanemab's trials to determine if they were linked to the treatment, according to a report by the journal Science. Eisai said it could not comment on individual cases to protect the privacy of patients. It said all available safety information indicated that lecanemab therapy was not associated with "an increased risk of death overall or any specific cause".

Howard said: "The benefits are still really unclear." He would like much more detailed information about the lecanemab trial at the presentation. "I want to see a proper breakdown of the data in terms of the efficacy."

Experts are divided on whether the trial results prove the amyloid hypothesis. Andrea Pfeifer, chief executive of AC Immune, a clinical stage group developing drugs targeting neurodegenerative diseases, said the results validated amyloid beta as "a target for Alzheimer's disease therapies". But it might not be the only target for Alzheimer's and future treatments might require different combinations of therapeutics, each targeting specific neurodegenerative disorders and brain inflammation. Alberto Espay, professor of neurology at the University of Cincinnati, said that in addition to lowering amyloid levels in the brain, lecanemab increased the levels of a normal protein, amyloid beta-42, which could also be the cause of the benefits highlighted by the trial.

For Eisai and those affected by Alzheimer's, lecanemab is a breakthrough they have been chasing for a quarter of a century. Naito said: "I've met with dementia patients and their families many, many times, and they ask me each time when the next drug will come out." After publication of trial data, he apologised for the long delay in developing lecanemab. But the drug is a coup for Eisai, a company dwarfed by rivals such as Roche and Eli Lilly. It licensed lecanemab in 2007 from a Swedish biotech, BioArctic, with which it continues to work on research. Lars Lannfelt, BioArctic's founder, said Eisai had proved a strong partner and lecanemab's successful trial should help the company expand thanks to its royalty agreement with Eisai. "We are very optimistic . . . and of course we are hopeful lecanemab will be approved."

Eisai has partnered with larger peers, such as Merck and Biogen, to develop drugs. It has narrowed its focus on two areas: oncology and neurology.

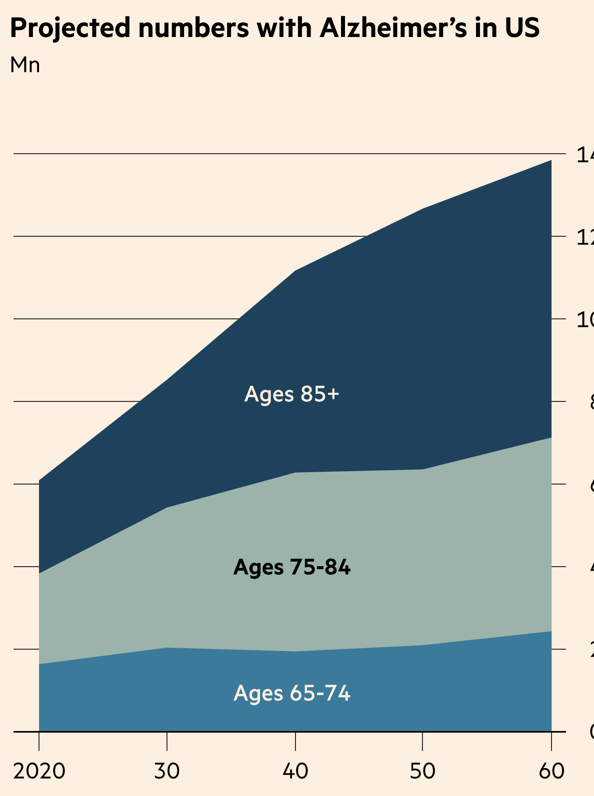
Naito said: "Everyone says it must be tough to develop a drug for dementia, but for Eisai this is a disease that we know most about, even more than cancer." Under Naito, president from 1988, the group's 11,000 employees have spent 1 per cent of their working hours — two-and-a-half days a year — engaging with Alzheimer's patients and their families. "It's not by coincidence that our trial results were successful," Naito said. "There has been a large amount of learning from our past failures."

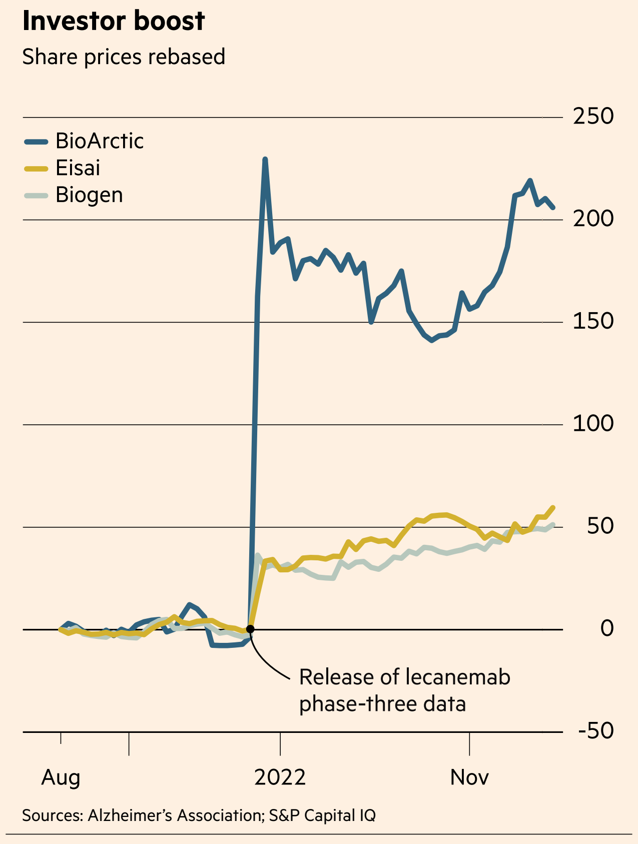
One big setback was the launch of aducanumab, which prompted the US Centers for Medicare & Medicaid Services to severely curb reimbursement for all amyloid-reducing monoclonal antibody treatments. Eisai in March gave up its right to share profits from that drug, whose benefits appear limited. "The big lesson for us was to ensure transparency of data," Naito said, referring to the controversy on whether the trial data of aducanumab provided enough evidence that the drug worked. "I don't think there will be such a controversial debate this time, since there is only one Clarity AD clinical trial for lecanemab, so it is a very simple and easy-to-understand drug development."

Regarding the potential price for lecanemab, Naito was confident that US insurers would be willing to pay. "There is no point unless the drug reaches the patients and is administered, so our biggest priority is to make sure the drug reaches the patients that need it. The basis of our pricing policy will be that it will be at a level that is affordable."

See Lex

Haruo Naito, CEO of Eisai, wants to put to rest an enduring and at times acrimonious debate about what causes the illness
Shoko Takayasu/Bloomberg





'I want to see a proper breakdown of the data in terms of the efficacy'

'There has been a large amount of learning from our past failures'

Chemicals

Akzo Nobel backs paint robot start-up to help tackle labour crunch

OLIVER TELLING — LONDON

Dulux owner Akzo Nobel has warned of a "big scarcity" of painters and decorators exacerbated by Brexit and the pandemic as the group backs a start-up developing a paint robot to ease the labour crunch.

The group's UK head called on the government to help resolve worker shortages that he said were creating "big delays" in the construction of new buildings. "Especially in the UK, we see a big scarcity of painters . . . We're really, really concerned," said José Antonio Jiménez Lozano.

"Covid, obviously, was playing a role in that because some people switched their profession . . . With Brexit, we have also seen a reduction of the people who were coming from some other European countries."

Faced with recruitment problems, Akzo has expanded beyond producing paints and started investing in tech that it hopes will address the shortage.

The Dutch group has acquired a minority stake in a French start-up Les Companions, which has developed a robot that can spray paint large surfaces through a mainly automated process.

The company has recently been demonstrating a prototype to customers in the UK. Antoine Rennuit, chief executive of Les Companions, said he expected completed products to be available next year.

But the robot, one of a handful in development by different companies, is some way from achieving the capabilities of a human painter.

It is at present limited to working on flat ground and can spray paint up to a height of 3.5 metres.

"I don't think [the robot] will [become commonplace] because, at the end of the day, the painting and decorating job is very [detailed]," said Jiménez. "You still need a human touch."

"There are a lot of obstacles" to making the robot practical on a building site, said one owner of a painting company during a demonstration at Akzo's UK headquarters. But if these can be overcome, it would be helpful to "leave it and set it to work" on a big construction.

The technology investment, however, may prove helpful for Akzo in the light of the labour shortages.

According to a Dulux survey of 348 industry members this year, 61 per cent of UK painting and decorating businesses were found to be struggling to find workers with the required skills.

Even before Brexit, UK businesses were contending with an ageing workforce, with Akzo's research suggesting at least 60 per cent of painters are more than 50 years old, Jiménez said.

The labour shortage also threatens to hold back the completion of constructions in the UK, which has long been suffering from a housing shortage, and heighten pressure on businesses hit by inflation.

For Akzo, which last month suspended its profit guidance for 2023, the worker problems are adding to difficulties over China's real estate crisis, which has hampered operations in one of its key markets.

"We're doing everything we can. [But] we need support from the authorities," said Jiménez, suggesting more needed to be done to support apprentice programmes and make painting an attractive profession.

Asked if he would support a special visa for painters, he said the topic had been discussed with the British Coatings Federation, an industry group, although the company has not formally called for this.

Technology

TikTok enlists tech start-ups to tackle teething troubles with ecommerce platform

CRISTINA CRIDDLE — LONDON

TikTok has enlisted the help of tech start-ups to improve its struggling ecommerce operations, as the fast-growing social media platform ramps up a push to diversify its revenues amid a slowdown in digital advertising.

Social commerce, where users can buy items without leaving the social media app, has seen massive success in China. TikTok's sister app, Douyin, enjoyed a 300 per cent rise in sales year on year in the 12 months to May, with users buying more than 10bn products.

China's ByteDance, which owns both TikTok and Douyin, plans to expand this model globally through TikTok Shop, which launched last year in the UK and south-east Asia. But TikTok's ecommerce rollout has been hit with a series of problems. Staff have left the department complaining of burnout, brands have abandoned the platform due to a lack of sales, and customers have complained about shipping delays and being sold counterfeit products.

TikTok has begun working with a handful of start-ups in recent weeks to remedy some of these issues and encourage sellers and buyers to use the platform. This includes ChannelEngine, TalkShopLive and YunExpress, which specialise in software that integrates shopping technology and fulfils orders.

The decision to outsource some operations to external companies is the latest effort by TikTok to boost its ecommerce arm, an area of the market it is betting on becoming a core revenue stream in the future.

It is not the first time the group has outsourced technology for live shopping. In October, the Financial Times revealed TikTok was teaming up with TalkShopLive to provide the underlying technology for live shopping features in North America, which the platform officially launched this month.

TikTok's doubling down comes as the company slashed its global revenue targets for 2022 by at least 20 per cent in September as it struggles to meet ambitious goals, according to four people familiar with the move.

Social media rivals, including Meta and YouTube, have experimented with shopping features over the past few years in an attempt to diversify their revenue streams.

Earlier this month, the FT revealed that YouTube was testing shopping links in Shorts, its short-form video offering set up to chase TikTok's exponential growth. Instagram has also been experimenting with shopping over the past few years, with limited success.

Multiple retailers and brands have previously told the FT they ended partnerships with TikTok Shop as the technology was too difficult to navigate and the level of resources needed to sell on the app was not worth the returns.

Outsourcing of some operations is the latest effort to bolster the unit

Jorrit Steinz, founder and chief executive of ChannelEngine, one of the new software companies working with TikTok Shop, said TikTok recognised there is a "challenge" to get brands on to the platform. ChannelEngine offers brands and retailers software to sign up easily to multiple online marketplaces and has more than 1,500 brands selling across 200 marketplaces on its platform.

Over the summer, the TikTok UK office received about 200 new customer complaints each day from users who had bought items on the app, primarily due to shipping issues, with customers waiting months for orders to be delivered, according to an employee.

As the holiday season approaches, TikTok has been hiring internal fulfilment staff in the US and UK to build a "new fulfilment service from scratch" in the US, EU and UK, according to job descriptions on the company's website.

Zendbox, a Kent-based fulfilment company, has also launched a service to help sellers fulfil TikTok shop orders from its warehouse, although it is not an official partner. "[We] saw the opportunity, advantages and the need," said Chris Sherlock, chief revenue officer at Zendbox, who said they had seen gradual take-up of the feature.

TikTok said it has robust anti-counterfeit policies, reporting measures and clear refund policies where customers can appeal if their items have not been delivered or have been delivered in an unsatisfactory condition.

TikTok declined to comment on the partnerships.

Crypto. Exchange collapse

Nervous auditors re-examine client risk in wake of FTX

Number's up: the failure of Sam Bankman-Fried's crypto empire has placed a spotlight on auditors
Jeenah Moon/Bloomberg

Closer inspection of nascent industry will cost digital assets groups significantly more

STEPHEN FOLEY — NEW YORK

Cryptocurrency businesses that need their financial statements audited are probably going to have to pay more for it — thanks to Sam Bankman-Fried.

The collapse of Bankman-Fried's crypto empire and the spotlight it shone on the auditors that signed off on his books has prompted small audit firms to re-examine their work for businesses in the nascent industry.

Several US firms told the Financial Times they had elevated some or all of their crypto-related clients to the status of "high risk", triggering a more thorough audit that will take longer and lead to higher bills. Some clients could ultimately be dropped altogether.

The re-examination comes just weeks ahead of the financial year-end in the US, where auditors are struggling to apply accounting rules for digital assets that are still only half formed and regulators are watching closely for slip-ups.

"Your antennas have to be up at this point," said Jeffrey Weiner, chief executive of Marcum, whose audit clients include bitcoin miners and digital asset investment groups.

The firm has designated all its crypto clients as high risk in the wake of FTX's collapse and the fallout in crypto-currency markets.

"When a client is high risk, you significantly expand the scope of the audit, and that translates into needing more resources and more time," Weiner added.

Extra work will be required to check a company's "systems, controls, the existence of assets, segregation of funds and, of course, given FTX, there will be extra scrutiny of related-party transactions", he added.

FTX bankruptcy filings described a chaotic operation where the crypto exchange was deeply intertwined with Bankman-Fried's personal trading business, and billions of dollars of customer money is unaccounted for.

John Ray III, the insolvency expert newly installed as chief executive, said he had never seen "such a complete failure of corporate controls and such a complete absence of trustworthy financial information".

The filings raised the question of how Prager Metis — a US firm with just $139mn in annual revenue — was able to issue an unqualified audit opinion for the 2021 financial statements from FTX's sprawling international operations.

Industry standards require auditors to understand a private company's internal controls and design an audit accordingly, even though they are not required to attest that the controls are strong.

Armanino, a California-based firm with $458mn in annual revenue, issued a similarly unqualified opinion for financial statements from FTX's US exchange business.

The two firms have put out statements standing by their work for FTX, which both said did not continue beyond last year's audit.

Given the breadth of businesses with exposure to FTX and crashing markets for digital assets, "we are checking in with our clients and we have had some where we have had to adjust risk ratings", said a partner at another firm that audits crypto businesses. "We are closing in on the end of the year, so if we are going to continue and finish up the audit, we have to ask if we have all the procedures we need, or new resources we need to bring to bear."

They added that smaller audit firms were likely to become more picky about taking on crypto clients. "We aren't in the business of working for people that might fail. When a company fails, there is a lot of work: you are going to get subpoenaed, deposed, people are going to want to look at your work papers to see if you missed anything. It's involved."

Two weeks before the FTX collapse, the Big Four audit firm EY parted company with Core Scientific, a Texas bitcoin miner that warned it could run out of cash by the end of this year.

EY said it found insufficient record-keeping and poor internal controls, in a regulatory filing.

Core Scientific said it would instead use Marcum as its auditor.

The Big Four — PwC, Deloitte and KPMG, along with EY — argue they can bring more resources to bear on work for crypto clients than smaller auditors. The large auditors typically charge more than smaller firms.

The Public Company Accounting Oversight Board, a US regulator, issued a bulletin in August telling companies they should check whether their auditors had the right skills.

'We aren't in the business of working for people that might fail. If a company fails, there is a lot of work'

The PCAOB asked: "What is the auditor's understanding of the financial reporting implications of the company's activities related to digital assets? What policies and procedures does the audit firm have regarding conducting and monitoring audit engagements involving digital assets, including considering the risks associated with performing such audits?"

Answering the first question is no easy matter, auditors said, as innovations in digital assets have come faster than accounting standards can be set.

The AICPA, a professional body that sets standards for audits of private companies, has written only some chapters of a guide for audit practices, with more still in the works.

"Our guidance is always informed by current events and real-world scenarios and any additional potential risks they may surface," said Susan Coffey, AICPA chief executive of public accounting.

Armanino, the auditor of FTX US, said it had "invested significant time and intellectual capital as an active participant in multiple accounting industry groups" to help develop standards.

Other audit firms are just pleased not to have become embroiled in crypto.

"Like I would hope every audit firm, after the FTX collapse we went back to look through our portfolio of clients," said Charly Weinstein, chief executive of EisnerAmper, said: "We haven't done [audit] work around cryptocurrency, out of an abundance of caution."

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Equities

Macau casino stocks surge after award of new licences

PRIMROSE RIORDAN — HONG KONG

Macau gaming stocks shot up yesterday after the Chinese gambling hub's government said it planned to award new licences to the city's existing casinos, marking a reprieve for the industry as it struggles to overcome Beijing's pandemic curbs.

Among the Hong Kong-listed arms of US casino groups, Wynn Macau rose 15.1 per cent, MGM China Holdings 13 per cent and Sands China 8.4 per cent.

The announcement offers relief to investors concerned about China's increasing hostility towards gambling following the arrests late last year of two of Macau's biggest gambling promoters, Alvin Chau and Levo Chan.

The two, who remain in jail on charges of illegal gambling, represented the city's biggest "junkets", which attracted high rollers to casinos.

Their arrests were part of a broader crackdown on the sector by Beijing.

"Many investors — especially long-only — were largely staying away from the sector given this 'tail risk'," said DS Kim, an analyst covering the sector for JPMorgan. "But this is great news: one of the biggest overhangs of recent years is now removed."

But with Macau still subject to China's tight pandemic restrictions, analysts said the pain was likely to persist for operators that have had to take on large amounts of debt to keep afloat as border controls stemmed the flow of incoming gamblers for the past three years.

'The resurgence of Covid cases in China is delaying a market recovery and is a credit negative'

"The resurgence of Covid cases in China is again delaying a market recovery and is a credit negative," said Gloria Tsuen, a senior credit officer at Moody's.

Macau said on Saturday that the existing six casino concession holders would be allowed to operate for another 10 years from January on a provisional basis, with the final details still to be hammered out.

"The final award of the . . . new gaming concession contract remains subject to final discussions with the Macau Government," MGM China said in a statement to the stock exchange yesterday.

Local operators Galaxy Entertainment, Melco Resorts & Entertainment and SJM Holdings, run by the family of late Macau gaming magnate Stanley Ho, were also among the licence holders whose terms the government extended.

The application of a Macau-registered entity linked to Malaysian tycoon Lim Kok Thay's conglomerate, Genting Malaysia Berhad, was unsuccessful.

Visitors to Macau are still subject to quarantine and Covid-19 outbreaks can lead to lockdowns.

One of MGM China's properties in the city was locked down in October.

See Lex

Crypto

US lawmaker pushes bipartisan bill for greater regulation of digital currencies

JOSHUA FRANKLIN

A US senator pushing for greater federal regulation of cryptocurrencies says the collapse of Sam Bankman-Fried's FTX exchange should be a catalyst for lawmakers to start paying attention to crypto.

In an interview at the Financial Times' Crypto and Digital Assets Summit, Senator Cynthia Lummis said FTX's failure — which has resulted in $8bn in missing customer deposits — highlighted the need for greater regulation in the nascent crypto industry.

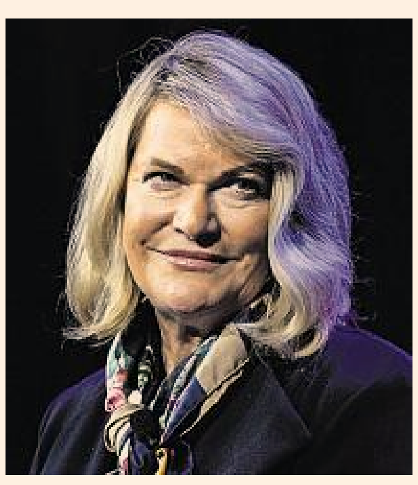
Lummis, a Republican from Wyoming, pushed as a solution a bill that she introduced in Congress in June with Kirsten Gillibrand, a Democratic senator from New York.

"I hope [FTX's collapse] highlighted with members of Congress who have not taken the time to learn more about this asset class, that it's time for them to learn more about it so we can engage in proper regulation," Lummis said.

The senator gained notoriety in Congress as an early champion of cryptocurrencies, buying her first bitcoin almost a decade ago — she still owns it but keeps it in a blind trust.

She say customers like herself, who use crypto wallets to store their digital assets and are not actively trading them, do not require more oversight.

Instead, her push is for stricter rules around companies like FTX which trade and have custody of clients' assets and are engaged in circular lending practices such as rehypothecation, where the same asset can be lent multiple times.



Cynthia Lummis gained attention in Congress as an early crypto champion

"We do it with other types of assets when rehypothecation happens," Lummis said. "We need to do it with cryptocurrencies as well."

Lummis said her crypto bill would ban the commingling of customer assets with investments belonging to an exchange — a practice which was at the heart of the losses at FTX.

Her bill remains in the Senate finance committee and she claimed to be "very hopeful" that it would be "high on our legislative agenda" when Congress reconvenes in January.

In the meantime, Lummis said she is working with regulators at the US Securities and Exchange Commission to ensure that her bill would not create loopholes for some non-crypto companies to evade oversight.

"We're hearing from certain people within the SEC that there may be some unintended consequences in the bill that would allow people currently regulated by the SEC to redefine their assets as digital assets under Lummis-Gillibrand and thereby have a lower level of regulatory scrutiny," Lummis said. "That's not our intent. We don't want that to happen."

Crypto

Thiel-backed BlockFi becomes latest sector casualty after bankruptcy filing

JOSHUA OLIVER, NIKOU ASGARI AND OLIVER RALPH

BlockFi has filed for Chapter 11 bankruptcy, making the crypto lender backed by Peter Thiel's venture capital firm the latest casualty of the fallout from the collapse of Sam Bankman-Fried's FTX exchange.

The filing marks an unravelling several months in the making for New Jersey-based BlockFi, which was valued at $4bn in a fundraising round last year and is led by chief executive Zac Prince.

In July, it suffered losses on loans to the collapsed crypto hedge fund Three Arrows Capital, leading to a bailout this summer from Bankman-Fried.

But FTX itself collapsed earlier this month, prompting BlockFi to pause lending and customer withdrawals.

Now the lender is the latest once high-flying crypto company to come crashing to earth as the collapse of Bankman-Fried's crypto empire sends ripples through the digital assets industry.

"This action follows the shocking events surrounding FTX and associated corporate entities and the difficult but necessary decision we made as a result to pause most activities on our platform," BlockFi said yesterday.

It added that it had "significant" exposure to FTX, and expects any recoveries of funds from the exchange to be "delayed".

BlockFi had assets and liabilities of $1bn to $10bn with more than 100,000 creditors, according to bankruptcy filings in New Jersey federal court yesterday.

BlockFi said it had 'significant exposure to FTX and associated corporate entities'

The lender is backed by a roster of prominent investors including Bain Capital, Tiger Global, Coinbase, the Winklevoss twins' venture capital firm and Peter Thiel's Valar Ventures, which holds a 19 per cent stake, according to the filings.

Several of BlockFi's investors had also backed now-defunct FTX, including billionaire Mike Novogratz's Galaxy Digital and San Francisco-based crypto venture capital firm Paradigm.

After suffering losses in the crypto crash this spring, BlockFi struck a deal with FTX that included a $400mn revolving-credit facility from FTX US and an option for the exchange to buy BlockFi at a "variable price . . . based on performance triggers".

Earlier this month, BlockFi said that it had "significant exposure to FTX and associated corporate entities that encompasses obligations owed to us by Alameda, assets held at FTX.com, and undrawn amounts from our credit line with FTX.US".

BlockFi listed FTX US as its second largest creditor in bankruptcy filings, owing the American arm of Bankman-Fried's company $275mn.

Its largest creditor is Ankura Trust, a New Hampshire-based trustee that represents creditors owed $729mn.

BlockFi also owes $30mn to the US Securities and Exchange Commission as part of a $100mn settlement agreed with the regulator in February in which the lender was charged for offering interest-bearing accounts without registering them as securities.

Yayoi Kusama

LOUIS VUITTON

Consensus forecast on shallow recession risks complacency

Mohamed El-Erian

Markets Insight

You would think that, after the chastening delivered by last year's transitory inflation call, consensus forecasters would be more open-minded in how they describe the US recession they see coming in 2023.

Yet they are confidently asserting that this recession will be "short and shallow" and are encouraging us again to "look through" a major development.

I worry that this could constitute a repeat of the analytical and behavioural traps that featured in last year's ill-fated inflation call and whose consequences we are yet to put behind us.

Let me stress upfront that this column is not about me predicting a recession.

While I see the risk as uncomfortably high, I am not convinced that it is a done deal as some have predicted. I am also not forecasting what such a recession might look like. Rather, I am warning about the traps that undermine the latest consensus forecast.

Undoubtedly, the "short and shallow" call has a few things going for it. The labour market is strong with still sizeable vacancies acting as shock absorbers that insulate jobs from a fall in growth.

Private sector balance sheets are relatively strong with a still-high stock of savings shielding household consumption, companies sitting on cash and debt maturities that have already termed out. And the banking system is less likely to act procyclically given its strong balance sheets, better net income due to more favourable interest margins and limited corporate defaults.

All this suggests that the private sector won't be the amplifier and prolonger of a recession. Some argue that the same can be said of the public sector as a rapidly falling inflation rate would allow the US Federal Reserve to downshift and then pause its rate rises.

Meanwhile, significant budget austerity to combat high government debt is precluded by a divided congress.

These are all valid arguments. But they are not deterministic. What is true for the economy as a whole is far from true for the whole population. The most vulnerable people and companies have already run down their savings, face more limited income opportunities and have less access to low-cost credit.

Their detrimental impact on growth is not easily offset by the better off.

While inflation will come down in the next few months, we are likely to see rate stickiness at about 4 per cent.

> Safeguard as much as possible against policy errors, corporate missteps and market accidents

There are many reasons for this, from wages to the changing nature of globalisation, to the multiyear impact of the rewiring of supply chains and the energy transition.

This is a tricky situation for the Fed. It is not just managing a short-term growth/inflation dilemma that is made more uncertain by the lagged effects of hugely front-loaded interest rate increases and a contracting money supply. The Fed is also dealing with a trilemma involving financial stability.

While fiscal policy will not take a sharp turn to austerity in an absolute sense, it will be contractionary on a relative basis. Finance will be similarly affected — banks' lending caution is likely to be amplified by liquidity compression and greater risk aversion among non-banks.

The US is not the only important economy facing slowing growth. Europe is already in a recession, China is hampered by its zero-Covid policy and there is Japan's challenging exit from yield curve control. All this at a time when growth models need big revamp.

Such many growth contractions open the door to vicious feedback loops, accentuating the need for more humility when predicting what lies ahead. So do behavioural considerations.

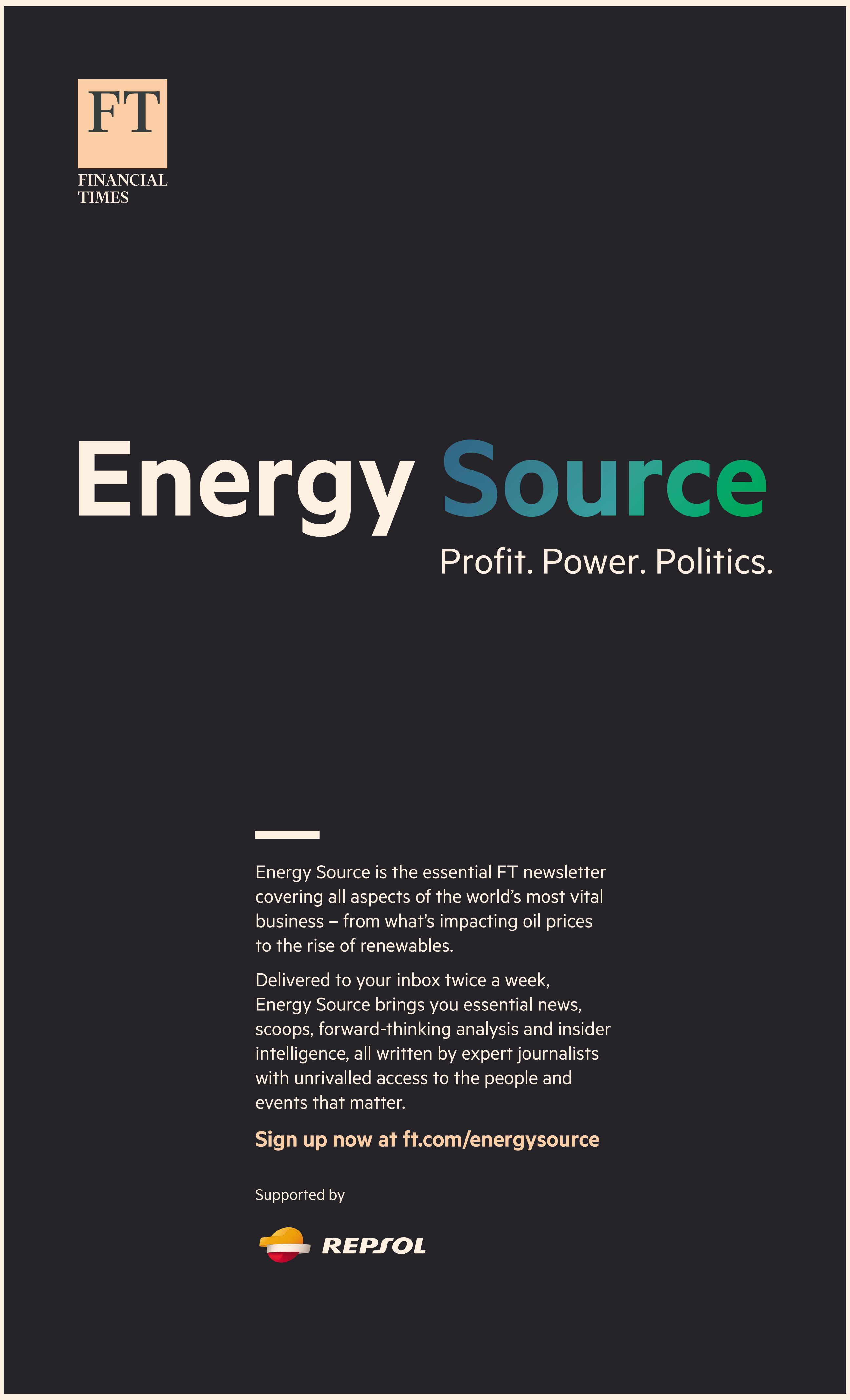
When taken out of our comfort zone by troubling news, our biases often kick in to make the news less unsettling.

Last year's version of this for consensus forecasters boiled down to "yes, we have high inflation but, don't worry, it is transitory". This year's version is "yes, we face a recession but don't worry, it will be short and shallow".

Both analytical and behavioural factors suggest that we should be cautious about the "short and shallow" consensus call. Companies, governments, households and equity investors should plan with an eye to a range of possible outcomes with no single one dominating as a baseline. Such fluidity calls for safeguarding as much as possible against policy errors, corporate missteps and market accidents.

Scenario planning for a wider range of possible outcomes is hard work and takes time, and much of it will eventually prove redundant. Betting on a shaky consensus forecast, however, could prove much more damaging.

Mohamed El-Erian is president of Queens' College, Cambridge, and an adviser to Allianz and Gramercy



The day in the markets

What you need to know

- **Global stocks slip after China's zero-Covid protests**
- **Oil prices waver as outlook for world's second-biggest economy grows muddy**
- **Dollar advances, benefiting as a haven from risks**

Global stocks slipped yesterday after protests in China against the government's Covid-19 policies dragged on sentiment and added to uncertainty about the outlook of the world's second-largest economy.

Wall Street's benchmark S&P 500 lost 0.9 per cent, chipping at the index's more than 3 per cent rise over the past month, while the tech-heavy Nasdaq Composite fell 0.8 per cent.

Across the Atlantic, the pan-regional Stoxx Europe 600 slid 0.6 per cent and London's FTSE 100 dropped 0.2 per cent.

Oil prices had stabilised by late afternoon in London with Brent crude, the international benchmark, having fallen nearly 3 per cent earlier in the day.

The US marker West Texas Intermediate added 0.7 per cent, erasing an earlier 1.8 per cent decline.

In Hong Kong, the Hang Seng China Enterprises index dropped as much as 4.5 per cent before pulling back to shed 1.6 per cent.

The decline on China's CSI 300 index of Shanghai- and Shenzhen-listed shares was as great as 2.8 per cent before it was trimmed to just over 1 per cent.

Growing unrest in China has hit investors with a "reality check", said Emmanuel Cau, head of European equity strategy at Barclays.

"China reopening hope was part of the bullish end-of-year narrative," Cau added. "Investors now realise that, whatever the direction of travel is on zero-Covid, it won't be a smooth process."

Traders said the protests added to uncertainty as a rise in infections has increased pressure on local officials to step up enforcement of President Xi Jinping's strict zero-Covid policy.

The use of blank paper as a symbol of protest against censorship caused trouble for some listed Chinese groups.

The Shanghai-listed shares of Shanghai M&G Stationery, a paper supplier, fell as much as 3.1 per cent.

It clarified in an exchange filing that a statement circulating on social media — which claimed the company had halted sales of A4 paper "to safeguard national security" — was a forgery.

The muddled outlook for China's economy weighed on the renminbi. The Chinese currency fell as much as 1.1 per cent to Rmb7.24 against the dollar.

The US Dollar index rose 0.3 per cent against a basket of six currency peers, benefiting in part from the "flare-up in China risks", said Lee Hardman, a currency analyst at MUFG. **Hudson Lockett and George Steer**

Covid-19 protests shake sentiment in China's stock market
CSI 300 index

Source: Refinitiv

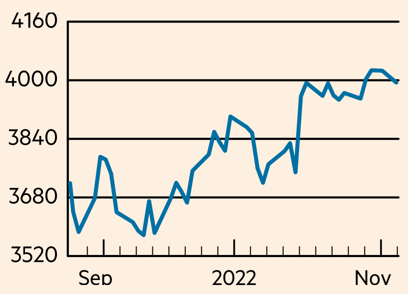
Markets update

	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	3993.68	1728.94	28162.83	7474.02	3078.55	109163.93
% change on day	-0.81	-0.62	-0.42	-0.17	-0.75	0.17
Currency	**$ index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	105.783	1.040	138.795	1.204	7.200	5.373
% change on day	-0.166	-0.096	-0.327	-0.414	0.532	0.272
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	3.687	1.985	0.253	3.119	2.868	13.065
Basis point change on day	-3.250	1.400	-0.220	0.400	2.800	-13.000
World index, Commods	**FTSE All-World**	**Oil - Brent**	**Oil - WTI**	**Gold**	**Silver**	**Metals (LMEX)**
Level	409.08	83.46	76.94	1751.85	21.34	3777.20
% change on day	-0.80	-0.20	0.87	-0.20	-1.04	-0.55

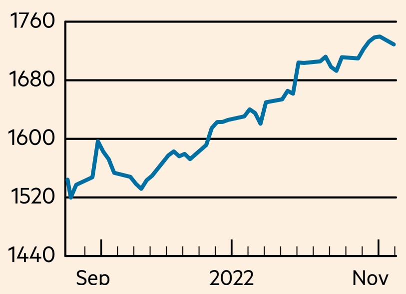
Yesterday's close apart from: Currencies = 16:00 GMT; S&P, Bovespa, All World, Oil = 17:00 GMT; Gold, Silver = London pm fix. Bond data supplied by Tullett Prebon.

Main equity markets

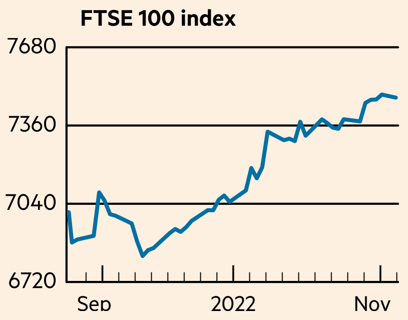
S&P 500 index



Eurofirst 300 index



FTSE 100 index



Biggest movers

%	US		Eurozone		UK	
Ups	Wynn Resorts	2.86	Ab Inbev	2.84	Pershing Square Holdings Ltd	1.37
	Tesla	2.55	Novozymes	1.79	Flutter Entertainment	1.27
	Amazon.com	1.92	Hermes Intl	1.35	Reckitt Benckiser	1.15
	Vertex Pharmaceuticals	1.86	Hugo Boss	1.15	Pearson	1.14
	Ulta Beauty	1.76	Novo Nordisk	1.11	Unilever	1.01
Downs	Biogen	-4.69	Brenntag	-8.80	Admiral	-4.42
	Transdigm	-4.10	Airbus	-5.57	Persimmon	-3.69
	Seagate Technology Holdings	-4.00	Mapfre	-5.00	Melrose Industries	-3.42
	Medtronic	-3.65	Saipem	-3.32	Ocado	-2.46
	Micron Technology	-3.60	Wartsila	-3.06	Rolls-royce Holdings	-2.45

Prices taken at 17:00 GMT. Based on the constituents of the FTSE Eurofirst 300 Eurozone

All data provided by Morningstar unless otherwise noted.

Wall Street

Apple declined on concerns that its shipment of iPhones could be affected by unrest at a Foxconn plant in central China.

Violent worker protests linked in part to discontent over the plant's inability to curb a Covid outbreak could result in a shortfall of about 6mn iPhone Pros this year, reported Bloomberg, quoting a "person familiar with assembly operations".

US-listed shares of **Taboola**, an Israel-based software group that helps to recommend content to digital users, surged after signing a 30-year commercial agreement with Yahoo.

As part of the deal, the web services provider will receive a 25 per cent stake in Taboola, which will power native advertising exclusively across Yahoo's digital properties — sites and apps that reach nearly 900mn monthly active users.

Biogen slid to near the bottom of the S&P 500 benchmark index following a report published on Science.org concerning the a death of woman in a trial for an experimental Alzheimer's drug that the biopharma group is developing with Eisai.

The Japanese partner said all available safety information indicated that the therapy was not associated with "an increased risk of death overall or from any specific cause". *Ray Douglas*

Europe

Adler Group, a Luxembourg-based real estate company that operates in Germany, surged on announcing an agreement with a core group of bondholders to amend the terms and conditions of its debt.

Under this arrangement, payment of interest on the bonds would be deferred until July 2025 and interest on this debt would rise.

The landlord is embroiled in a dispute with BaFin, Germany's financial watchdog, which said Adler had inflated its balance sheet and earnings in 2019 — an assessment the group denies.

"Adler and BaFin have different opinions on this matter, which are now being clarified by taking legal action," the company said in a statement this month.

Italian aerospace and defence group **Leonardo** climbed on news that it had won an order as part of a consortium to supply Brazil's army with armoured vehicles reportedly worth up to €2bn.

France's **Casino Groupe** rose as much as 6 per cent only to close lower after launching the sale of part of its stake in Brazil's Assaí — a move that would help trim the retailer's debt levels.

Around 141mn shares, representing a 10.4 per cent holding in the cash-and-carry specialist, would be offered with an additional 49.5mn shares possibly on the table. *Ray Douglas*

London

Drug discovery group **C4X Discovery Holdings** jumped on announcing that it had signed an exclusive worldwide licensing deal with AstraZeneca, worth up to $402mn, for its NRF2 Activator programme — a project linked to the treatment of inflammatory and respiratory diseases.

C4XD was eligible for pre-clinical milestone payments worth up to $16mn and potentially $385.8mn in development and commercial milestones and tiered mid-single digit royalties.

Property company **Home Reit**, which invests in sheltered housing for homeless people, sank after revealing a delay to its full-year results.

Given the publication of a critical short seller's report last week, the group said the delay was "required" as it underwent "an enhanced set of audit procedures", adding that this was "standard practice".

The real estate investment trust said that Viceroy Research's allegations were "inaccurate and misleading" and it planned to publish a full response to claims in the coming days.

Confirmation of press speculation sent **Superdry** down sharply with the casual-clothes group admitting that it was in negotiations with Bantry Bay Capital, a specialist lending provider, to replace its existing asset-backed lending facility of up to £70mn. *Ray Douglas*

MARKET DATA

WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

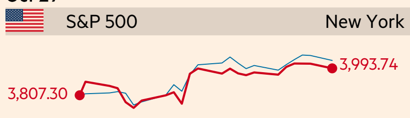
S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
-0.81%	-0.70%	-0.74%	-0.17%	-0.62%	-0.42%	-1.57%	-0.80%	-0.096%	-0.414%	-0.327%	0.348%	-2.70%	-0.20%

Stock Market movements over last 30 days, with the FTSE All-World in the same currency as a comparison

AMERICAS

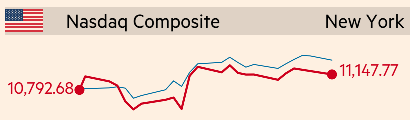
Oct 29 - - Index All World

S&P 500 New York



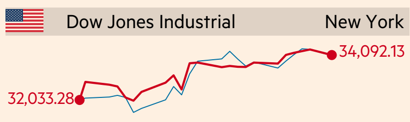
Day -0.81% Month 2.40% Year -13.06%

Nasdaq Composite New York



Day -0.70% Month 0.43% Year -28.02%

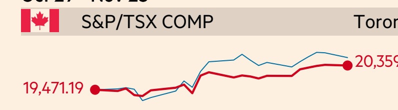
Dow Jones Industrial New York



Day -0.74% Month 3.75% Year -2.31%

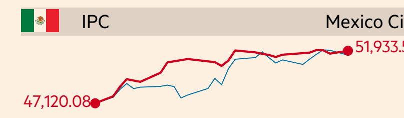
Oct 29 - Nov 28 Index All World

S&P/TSX COMP Toronto



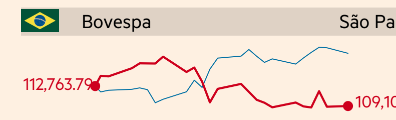
Day -0.45% Month 4.22% Year -3.94%

IPC Mexico City



Day -0.13% Month 5.13% Year 4.27%

Bovespa São Paulo

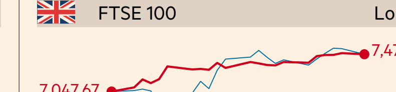


Day 0.17% Month -4.70% Year 6.78%

EUROPE

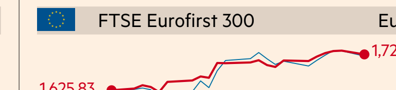
Oct 29 - Nov 28 Index All World

FTSE 100 London



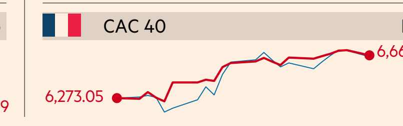
Day -0.17% Month 6.15% Year 6.21%

FTSE Eurofirst 300 Europe



Day -0.62% Month 6.61% Year -3.66%

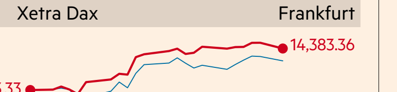
CAC 40 Paris



Day -0.70% Month 6.75% Year -1.11%

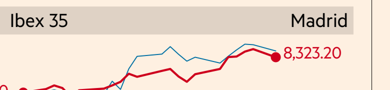
Oct 29 - Nov 28 Index All World

Xetra Dax Frankfurt



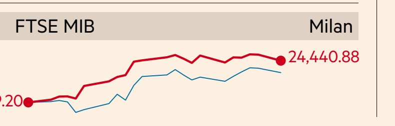
Day -1.09% Month -0.34% Year -8.71%

Ibex 35 Madrid



Day -1.11% Month 5.08% Year -0.95%

FTSE MIB Milan

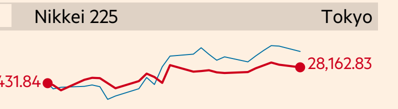


Day -1.12% Month 8.34% Year -5.33%

ASIA

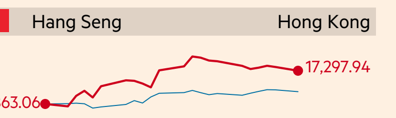
Oct 29 - Nov 28 Index All World

Nikkei 225 Tokyo



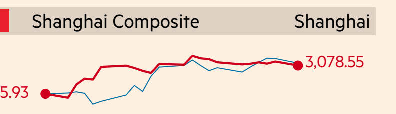
Day -0.42% Month 2.86% Year -2.17%

Hang Seng Hong Kong



Day -1.57% Month 12.19% Year -28.12%

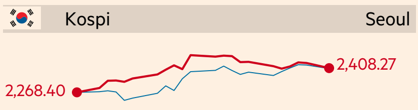
Shanghai Composite Shanghai



Day -0.75% Month 3.21% Year -13.62%

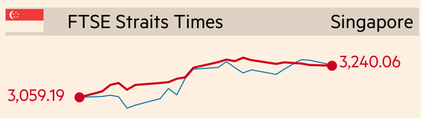
Oct 29 - Nov 28 Index All World

Kospi Seoul



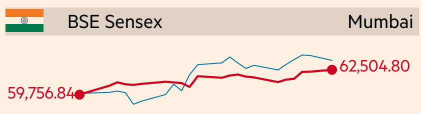
Day -1.21% Month 5.22% Year -17.99%

FTSE Straits Times Singapore



Day -0.14% Month 7.67% Year 2.53%

BSE Sensex Mumbai



Day 0.34% Month 4.55% Year 9.40%

Country	Index	Latest	Previous
Argentina	Merval	164059.65	163480.69
Australia	All Ordinaries	7418.60	7447.60
	S&P/ASX 200	7229.10	7259.50
	S&P/ASX 200 Res	5838.40	5905.70
Austria	ATX	3208.77	3267.27
Belgium	BEL 20	3682.06	3707.95
	BEL Mid	9527.76	9623.23
Brazil	IBovespa	109163.93	108976.70
Canada	S&P/TSX 60	1232.96	1237.09
	S&P/TSX Comp	20292.75	20383.77
	S&P/TSX Div Met & Min	1373.18	1383.19
Chile	S&P/CLX IGPA Gen	27990.79	28144.53
China	FTSE A200	9890.48	9998.55
	FTSE B35	9000.71	8988.96
	Shanghai A	3226.70	3251.00
	Shanghai B	287.43	289.66
	Shanghai Comp	3078.55	3101.69
	Shenzhen A	2065.18	2075.77
	Shenzhen B	1119.06	1120.82
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29

Country	Index	Latest	Previous
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1235.44	1243.26
Denmark	OMXC Copenahgen 20	1756.69	1752.39
Egypt	EGX 30	12917.22	13009.48
Estonia	OMX Tallinn	1721.50	1727.79
Finland	OMX Helsinki General	10907.26	11044.22
France	CAC 40	6665.20	6712.48
	SBF 120	5114.66	5151.27
Germany	M-DAX	25600.97	25971.45
	TecDAX	3073.46	3118.19
	XETRA Dax	14383.36	14541.38
Greece	Athens Gen	907.00	917.64
	FTSE/ASE 20	2205.38	2233.43
Hong Kong	Hang Seng	17297.94	17573.58
	HS China Enterprise	5872.38	5971.10
	HSCC Red Chip	3470.99	3511.74
Hungary	Bux	45588.74	45715.33
India	BSE Sensex	62504.80	62293.64
	Nifty 500	15784.45	15727.25
Indonesia	Jakarta Comp	7017.36	7053.15
Ireland	ISEQ Overall	7267.08	7313.29
Israel	Tel Aviv 125	1887.91	1903.94

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	26490.02	26739.61
	FTSE Italia Mid Cap	39784.77	39993.27
	FTSE MIB	24440.88	24718.81
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	28162.83	28283.03
	S&P Topix 150	1720.04	1731.87
	Topix	2004.31	2018.00
Jordan	Amman SE	2483.49	2471.40
Kenya	NSE 20	1652.06	1643.03
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1111.68	1109.92
Lithuania	OMX Vilnius	933.86	931.95
Luxembourg	LuxX	1464.45	1462.05
Malaysia	FTSE Bursa KLCI	1486.54	1501.88
Mexico	IPC	51600.68	51668.64
Morocco	MASI	10835.23	10805.97
Netherlands	AEX	720.51	722.93
	AEX All Share	980.44	984.44
New Zealand	NZX 50	11308.31	11382.56
Nigeria	SE All Share	47554.34	46604.94
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	42071.34	42936.73

Country	Index	Latest	Previous
Philippines	Manila Comp	6681.47	6606.94
Poland	Wig	55862.90	56280.53
Portugal	PSI 20	5818.76	5877.95
	PSI General	4457.49	4505.86
Romania	BET Index	11530.21	11569.94
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	10746.64	10796.46
Singapore	FTSE Straits Times	3240.06	3244.55
Slovakia	SAX	336.17	336.17
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	73368.25	73151.38
	FTSE/JSE Res 20	70794.66	71441.23
	FTSE/JSE Top 40	66993.69	66753.48
South Korea	Kospi	2408.27	2437.86
	Kospi 200	312.21	316.07
Spain	IBEX 35	8323.20	8416.60
Sri Lanka	CSE All Share	8309.94	8148.06
Sweden	OMX Stockholm 30	2096.38	2116.74
	OMX Stockholm AS	803.82	813.29
Switzerland	SMI Index	11162.16	11168.03

Country	Index	Latest	Previous
Taiwan	Weighted Pr	14556.87	14778.51
Thailand	Bangkok SET	1616.91	1620.84
Turkey	BIST 100	4923.23	4923.23
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2533.50	2528.70
	FTSE 100	7474.02	7486.67
	FTSE 4Good UK	6735.02	6752.32
	FTSE All Share	4098.49	4112.31
	FTSE techMARK 100	6405.18	6418.68
USA	DJ Composite	11346.66	11429.22
	DJ Industrial	34092.13	34347.03
	DJ Transport	14343.36	14442.58
	DJ Utilities	965.19	972.06
	Nasdaq 100	11689.53	11756.03
	Nasdaq Cmp	11147.77	11226.36
	NYSE Comp	15482.05	15605.67
	S&P 500	3993.68	4026.12
	Wilshire 5000	39699.94	40018.88
Venezuela	IBC	13310.51	12944.63
Vietnam	VNI	1005.69	971.46

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	421.50	424.49
	Euro Stoxx 50 (Eur)	3939.14	3962.41
	Euronext 100 ID	1272.19	1279.45
	FTSE 4Good Global ($)	9752.80	9839.03
	FTSE All World ($)	409.08	412.37
	FTSE E300	1728.94	1739.73
	FTSE Eurotop 100	3407.91	3423.27
	FTSE Global 100 ($)	2511.60	2529.66
	FTSE Gold Min ($)	1682.61	1704.71
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	2686.41	2693.91
	FTSE World ($)	744.50	750.58
	FTSEurofirst 100 (Eur)	4592.59	4621.30
	FTSEurofirst 80 (Eur)	5334.93	5375.69
	MSCI ACWI Fr ($)	625.15	625.96
	MSCI All World ($)	2703.67	2706.01
	MSCI Europe (Eur)	1770.54	1767.95
	MSCI Pacific ($)	2638.41	2653.86
	S&P Euro (Eur)	1758.08	1772.03
	S&P Europe 350 (Eur)	1772.45	1783.34
	S&P Global 1200 ($)	2957.41	2982.04
	Stoxx 50 (Eur)	3765.39	3769.06

(c) Closed. (u) Unavaliable. † Correction. ♥ Subject to official recalculation. For more index coverage please see www.ft.com/worldindices. A fuller version of this table is available on the ft.com research data archive.

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Tesla	88.0	187.53	4.67
Apple	40.6	145.16	-2.95
Amazon.com	36.0	95.21	1.80
Nvidia	20.5	161.05	-1.65
Microsoft	20.1	243.11	-4.38
Advanced Micro Devices	15.2	74.07	-1.07
Exxon Mobil	13.0	111.08	-2.13
Alphabet	10.2	96.41	-1.05
Chevron	7.3	180.78	-2.92
Netflix	7.1	284.33	-1.22

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Wynn Resorts	77.07	2.14	2.86
Tesla	187.53	4.67	2.55
Amazon.com	95.21	1.80	1.92
Vertex Pharmaceuticals	318.80	5.82	1.86
Ulta Beauty	456.22	7.87	1.76
Downs			
Biogen	290.85	-14.30	-4.69
Transdigm	610.42	-26.12	-4.10
Seagate Technology Holdings	52.51	-2.19	-4.00
Medtronic	76.23	-2.89	-3.65
Micron Technology	56.31	-2.10	-3.60

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Bp	175.8	483.55	-4.80
Shell	164.3	2360.50	-6.50
Glencore	145.6	538.30	4.50
Gsk	135.4	1394.80	2.40
Aveva	120.3	3175.00	-16.00
Vodafone	108.0	92.81	-0.25
Astrazeneca	105.1	11050.00	96.00
Rio Tinto	87.8	5363.00	-16.00
Unilever	83.7	4155.00	41.50
Hsbc Holdings	69.9	488.60	-3.35

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Vietnam Enterprise Investments	563.00	18.00	3.30
Vinacapital Vietnam Opportunity Fund Ltd	422.00	12.00	2.93
Just	74.45	1.65	2.27
Johnson Matthey	2128.00	37.00	1.77
Hilton Food	544.00	9.00	1.68
Downs			
Home Reit	55.50	-4.20	-7.04
Dr. Martens	193.10	-14.50	-6.98
Future	1455.00	-91.00	-5.89
Syncona	175.20	-9.60	-5.19
Travis Perkins	939.40	-45.00	-4.57

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Roche Gs	455.0	317.93	1.02
Nestle N	281.6	115.51	0.51
Telefonica	271.9	3.61	-0.04
Asml Holding	225.0	567.90	-6.20
Totalenergies	221.3	57.76	-0.68
Novartis N	219.3	84.75	0.25
Eni	190.9	14.02	-0.28
Cs N	171.0	3.06	-0.13
Unicredit	170.0	13.10	-0.02
Novo Nordisk B A/s	158.2	115.43	1.26

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Prosus	60.37	2.20	3.78
Anheuser-busch	56.27	1.85	3.40
Richemont N	119.38	2.54	2.18
Swiss Re N	85.26	1.22	1.45
Hermes Intl	1498.50	20.00	1.35
Downs			
Airbus	107.48	-6.34	-5.57
Cs N	3.06	-0.13	-4.16
Sika N	241.50	-7.43	-2.98
Orsted A/s Dk 10	11.15	-0.29	-2.57
Sartorius Sted Bio	331.50	-8.70	-2.56

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Softbank .	608.5	6042.00	-37.00
Mitsubishi Ufj Fin,.	515.2	751.90	-6.80
Sumitomo Mitsui Fin,.	445.6	4671.00	-113.00
Fast Retailing Co.,	437.1	80070.00	180.00
Tokyo Electron	379.9	45300.00	-720.00
Nippon Yusen Kabushiki Kaisha	365.0	2934.50	-13.00
Shionogi & Co.,	330.9	7015.00	-114.00
Toyota Motor	283.3	2033.00	-21.50
Nintendo Co.,	254.0	5906.00	-53.00
Nippon Steel & Sumitomo Metal	251.9	2178.00	-80.50

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Nexon Co.,	2880.00	81.00	2.89
Yokohama Rubber Co Ltd	2176.00	30.00	1.40
Rakuten .	670.00	9.00	1.36
Ebara	5370.00	70.00	1.32
Eisai Co.,	9584.00	116.00	1.23
Downs			
Cyberagent,.	1241.00	-102.00	-7.59
Nippon Steel & Sumitomo Metal	2178.00	-80.50	-3.56
Jfe Holdings,.	1500.00	-48.00	-3.10
Kobe Steel,	612.00	-19.00	-3.01
Sumitomo Realty & Development Co.,	3666.00	-110.00	-2.91

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Nov 28 price(p)	%Chg week	%Chg ytd
Winners			
Frasers	894.00	8.6	14.9
Glencore	538.30	8.3	40.9
Entain	1397.00	7.8	-
Bp	483.55	5.5	45.4
Flutter Entertainment	11945.00	4.8	2.0
Associated British Foods	1575.50	4.7	-
Rolls-royce Holdings	88.62	4.5	-
Shell	2360.50	3.9	45.9
Harbour Energy	311.00	3.8	-
Bae Systems	811.60	3.8	48.2
Jd Sports Fashion	124.50	3.7	-
Intertek	4042.00	3.5	-
Losers			
Vodafone	92.81	-5.4	-
Rs	931.00	-4.1	-24.6
Prudential	928.40	-2.8	-
Admiral	2034.00	-2.2	-
Segro	816.20	-2.2	-
Convatec	229.20	-1.9	20.6
Ocado	633.80	-1.8	-
Scottish Mortgage Investment Trust	763.60	-1.6	-
National Grid	1016.00	-1.6	-5.5
Legal & General	256.70	-1.5	-13.4
St. James's Place	1162.50	-1.4	-
Kingfisher	242.80	-1.3	-

FTSE 250	Nov 28 price(p)	%Chg week	%Chg ytd
Winners			
Just	74.45	8.0	-8.5
Telecom Plus	2490.00	6.6	56.9
Essentra	249.00	6.2	-
Britvic	804.00	5.6	-13.6
Tui Ag	147.90	5.5	-
Vietnam Enterprise Investments	563.00	5.4	-
Ncc	215.00	5.4	-8.5
Hikma Pharmaceuticals	1505.50	5.2	-
Johnson Matthey	2128.00	5.1	2.4
Fdm (holdings)	738.00	5.1	-42.3
888 Holdings	102.70	5.0	-
Network Int Holdings	338.80	4.9	15.6
Losers			
Dr. Martens	193.10	-32.7	-
Home Reit	55.50	-27.6	-
Petrofac	93.45	-21.3	-17.1
Pets At Home	270.00	-11.9	-
Petershill Partners	175.40	-10.6	-
Molten Ventures	394.80	-9.7	-
Target Healthcare Reit	79.00	-7.5	-
Lxi Reit	117.20	-7.3	-
Videndum	1218.00	-7.2	-16.0
Discoverie	804.00	-6.5	-21.0
Syncona	175.20	-6.2	-
Urban Logistics Reit	141.50	-6.0	-

FTSE SmallCap	Nov 28 price(p)	%Chg week	%Chg ytd
Winners			
Devro	310.00	63.8	54.1
Augmentum Fintech	103.50	18.8	-
Rank	91.20	18.4	-
Ao World	61.25	17.0	-43.9
Capital & Regional	59.90	14.1	-1.2
Funding Circle Holdings	54.60	13.0	-
Nanoco	38.40	12.9	99.5
On The Beach	115.20	12.1	-58.2
Hostelworld	101.00	11.4	46.0
Costain	38.45	10.5	-
Fisher (james) & Sons	344.00	10.3	-5.4
Record	80.50	9.7	-3.1
Losers			
De La Rue	77.00	-23.0	-
Superdry	104.80	-15.6	-
Lsl Property Services	230.00	-13.2	-
Xp Power	2015.00	-8.6	-
Civitas Social Housing	60.30	-6.7	-
Atrato Onsite Energy	79.50	-5.4	-
Pharos Energy	25.50	-5.2	0.8
Petra Diamonds	95.00	-5.0	32.9
Norcros	186.00	-5.0	-41.0
Halfords	198.40	-4.8	-
Schroder Eur Real Estate Investment Trust	79.00	-4.6	-
Forterra	210.50	-4.3	-22.0

Industry Sectors	Nov 28 price(p)	%Chg week	%Chg ytd
Winners			
Industrial Metals	7480.77	4.7	17.8
Oil & Gas Producers	8263.21	4.4	44.4
Aerospace & Defense	4893.40	3.8	17.4
Travel & Leisure	6578.40	3.5	-
Food Producers	5755.27	3.0	-
Electronic & Electrical Equip.	9362.75	2.0	-22.3
Mining	10736.71	2.0	-45.4
Beverages	28856.30	1.9	-7.0
Industrial Transportation	3709.11	1.8	-
Chemicals	12094.10	1.7	-
General Retailers	3240.12	1.6	12.3
Food & Drug Retailers	4157.74	1.0	-4.9
Losers			
Personal Goods	32723.61	-3.7	-8.5
Mobile Telecommunications	2357.24	-3.3	-
Real Estate Investment Trusts	2306.03	-2.9	-
Automobiles & Parts	1300.55	-2.3	-64.1
Life Insurance	6498.99	-1.7	-
Equity Investment Instruments	11438.94	-1.2	-
Construction & Materials	6910.67	-0.6	-
Nonlife Insurance	3190.14	-0.5	-2.7
Gas Water & Multiutilities index	5811.99	-0.5	-2.2
General Financial	12881.43	-0.2	11.7
Pharmaceuticals & Biotech.	20503.86	-0.2	9.2
General Industrials	6254.71	-0.1	-

Based on last week's performance. †Price at suspension.

CURRENCIES

Nov 28	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	166.6474	1.0393	173.2715	0.9319	200.6180	0.3326
Australia	Australian Dollar	1.4947	0.0129	1.5541	0.0120	1.7993	0.0072
Bahrain	Bahrainin Dinar	0.3771	-	0.3920	-0.0003	0.4539	-0.0021
Bolivia	Bolivian Boliviano	6.9100	-	7.1847	-0.0062	8.3186	-0.0383
Brazil	Brazilian Real	5.3732	0.0146	5.5867	0.0103	6.4685	-0.0122
Canada	Canadian Dollar	1.3434	0.0061	1.3967	0.0051	1.6172	-0.0001
Chile	Chilean Peso	913.1250	-6.9850	949.4214	-8.0890	1099.2633	-13.5128
China	Chinese Yuan	7.2003	0.0381	7.4865	0.0332	8.6681	0.0061
Colombia	Colombian Peso	4834.7550	-35.2950	5026.9368	-41.0708	5820.3085	-69.5038
Costa Rica	Costa Rican Colon	603.2300	-3.7950	627.2082	-4.4910	726.1970	-7.9358
Czech Republic	Czech Koruna	23.3999	0.0015	24.3300	-0.0195	28.1699	-0.1280
Denmark	Danish Krone	7.1524	0.0065	7.4368	0.0004	8.6105	-0.0318
Egypt	Egyptian Pound	24.5708	-0.0514	25.5475	-0.0756	29.5795	-0.1985
Hong Kong	Hong Kong Dollar	7.8181	0.0003	8.1289	-0.0068	9.4118	-0.0431
Hungary	Hungarian Forint	390.3583	-3.2804	405.8749	-3.7643	469.9318	-6.1326
India	Indian Rupee	81.6675	-0.0300	84.9138	-0.1046	98.3152	-0.4893

Nov 28	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Indonesia	Indonesian Rupiah	15722.5000	50.0000	16347.4821	37.9134	18927.4926	-26.7632
Israel	Israeli Shekel	3.4326	0.0101	3.5690	0.0074	4.1323	-0.0069
Japan	Japanese Yen	138.7950	-0.4550	144.3121	-0.5981	167.0880	-1.3202
..One Month		138.7945	-0.4560	144.3118	-0.5985	167.0875	-1.3211
..Three Month		138.7933	-0.4584	144.3113	-0.5996	167.0864	-1.3234
..One Year		138.7879	-0.4690	144.3081	-0.6061	167.0875	-1.3281
Kenya	Kenyan Shilling	122.4500	0.2500	127.3173	0.1502	147.4111	-0.3769
Kuwait	Kuwaiti Dinar	0.3076	0.0001	0.3198	-0.0002	0.3703	-0.0016
Malaysia	Malaysian Ringgit	4.4745	-	4.6524	-0.0040	5.3866	-0.0248
Mexico	Mexican Peso	19.3035	-0.0305	20.0708	-0.0491	23.2385	-0.1440
New Zealand	New Zealand Dollar	1.6108	0.0083	1.6748	0.0071	1.9392	0.0011
Nigeria	Nigerian Naira	443.7500	0.2500	461.3889	-0.1384	534.2074	-2.1592
Norway	Norwegian Krone	9.9685	0.0945	10.3647	0.0893	12.0006	0.0589
Pakistan	Pakistani Rupee	223.5000	-	232.3840	-0.2007	269.0599	-1.2398
Peru	Peruvian Nuevo Sol	3.8553	-0.0198	4.0085	-0.0241	4.6412	-0.0453
Philippines	Philippine Peso	56.6500	-0.0300	58.9018	-0.0821	68.1980	-0.3505

Nov 28	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Poland	Polish Zloty	4.4943	-0.0135	4.6729	-0.0181	5.4104	-0.0413
Romania	Romanian Leu	4.7358	0.0079	4.9241	0.0040	5.7012	-0.0167
Russia	Russian Ruble	61.1000	0.1750	63.5287	0.1272	73.5551	-0.1273
Saudi Arabia	Saudi Riyal	3.7578	-	3.9071	-0.0034	4.5238	-0.0208
Singapore	Singapore Dollar	1.3762	0.0001	1.4309	-0.0012	1.6567	-0.0076
South Africa	South African Rand	17.1213	0.0063	17.8018	-0.0089	20.6114	-0.0874
South Korea	South Korean Won	1340.2500	16.6500	1393.5245	16.1231	1613.4567	12.7020
Sweden	Swedish Krona	10.4827	0.0592	10.8994	0.0522	12.6196	0.0134
Switzerland	Swiss Franc	0.9450	-0.0016	0.9826	-0.0025	1.1377	-0.0071
Taiwan	New Taiwan Dollar	31.0135	0.1305	32.2463	0.1080	37.3355	-0.0142
Thailand	Thai Baht	35.5663	-0.2663	36.9800	-0.3090	42.8163	-0.5193
Tunisia	Tunisian Dinar	3.2295	0.0123	3.3579	0.0099	3.8878	-0.0030
Turkey	Turkish Lira	18.6241	-0.0109	19.3643	-0.0281	22.4205	-0.1166
United Arab Emirates	UAE Dirham	3.6731	-	3.8191	-0.0033	4.4218	-0.0204
United Kingdom	Pound Sterling	0.8307	0.0038	0.8637	0.0032	-	-
..One Month		0.8308	0.0038	0.8636	0.0032	-	-

Nov 28	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
..Three Month		0.8310	0.0038	0.8633	0.0032	-	-
..One Year		0.8316	0.0038	0.8622	0.0033	-	-
United States	United States Dollar	-	-	1.0397	-0.0009	1.2038	-0.0055
..One Month		-	-	1.0395	-0.1696	1.2039	-0.0055
..Three Month		-	-	1.0390	-0.1696	1.2042	-0.0055
..One Year		-	-	1.0372	-0.1698	1.2047	-0.0055
Vietnam	Vietnamese Dong	24787.5000	17.5000	25772.7973	-4.0525	29840.4135	-116.2991
European Union	Euro	0.9618	0.0008	-	-	1.1578	-0.0043
..One Month		0.9615	0.0008	-	-	1.1577	-0.0043
..Three Month		0.9610	0.0008	-	-	1.1575	-0.0043
..One Year		0.9592	0.0006	-	-	1.1563	-0.0043

Rates are derived from WM Reuters Spot Rates and MorningStar (latest rates at time of production). Some values are rounded. Currency redenominated by 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

FTSE ACTUARIES SHARE INDICES

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	£ Strlg Nov 28	Day's chge%	Euro Index	£ Strlg Nov 25	£ Strlg Nov 24	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	7486.67	0.27	6785.20	7466.60	7465.24	7310.37	3.63	1.63	16.94	264.38	7684.48
FTSE 250 (250)	19545.70	0.03	17714.34	19540.34	19500.50	23279.96	3.07	0.71	45.62	511.59	16238.85
FTSE 250 ex Inv Co (173)	20125.03	-0.06	18239.39	20136.27	20053.33	24088.33	3.16	1.24	25.59	538.48	17056.81
FTSE 350 (350)	4152.24	0.23	3763.19	4142.60	4140.69	4187.39	3.55	1.51	18.69	140.90	8455.96
FTSE 350 ex Investment Trusts (270)	4089.31	0.23	3706.16	4079.86	4077.33	4076.10	3.60	1.68	16.56	141.20	4304.00
FTSE 350 Higher Yield (132)	3563.28	0.35	3229.42	3550.96	3552.49	3277.35	5.00	1.74	11.51	162.26	8186.85
FTSE 350 Lower Yield (218)	4320.63	0.11	3915.80	4315.68	4309.72	4866.33	2.04	0.93	52.91	90.49	5318.17
FTSE SmallCap (236)	6243.19	0.33	5658.23	6222.48	6201.21	7405.60	3.43	0.13	219.75	195.73	10487.02
FTSE SmallCap ex Inv Co (126)	5045.54	0.86	4572.79	5002.56	4977.04	6157.62	3.57	2.36	11.87	148.53	8806.76
FTSE All-Share (586)	4112.31	0.24	3727.00	4102.66	4100.46	4167.28	3.54	1.48	19.13	139.24	8456.61
FTSE All-Share ex Inv Co (396)	4015.49	0.24	3639.25	4005.87	4003.14	4015.34	3.60	1.69	16.47	138.36	4290.93
FTSE All-Share ex Multinationals (523)	1097.14	-0.03	824.51	1097.44	1092.91	1340.96	3.84	0.89	29.31	38.78	2334.21
FTSE Fledgling (82)	11517.54	0.28	10438.39	11485.47	11506.14	13483.44	3.77	4.47	5.93	347.88	24936.59
FTSE Fledgling ex Inv Co (32)	14954.17	0.71	13553.02	14848.17	14915.88	18074.37	3.48	7.77	3.69	448.06	31439.00
FTSE All-Small (318)	4351.55	0.33	3943.82	4337.24	4323.65	5158.23	3.45	0.39	73.93	136.20	9375.52
FTSE All-Small ex Inv Co (158)	3793.45	0.85	3438.02	3761.34	3743.46	4628.02	3.57	2.55	11.00	111.76	8385.97
FTSE AIM All-Share (757)	847.07	0.32	767.70	844.39	840.30	1203.96	1.63	1.78	34.48	12.68	995.09
FTSE All-Share Technology (21)	2046.33	-0.29	1703.65	2052.20	2056.63	2336.16	1.87	0.89	59.88	39.63	2964.06
FTSE All-Share Telecommunications (6)	1548.17	0.49	1288.91	1540.59	1553.89	1849.92	6.84	1.03	14.20	98.30	2365.83
FTSE All-Share Health Care (14)	14232.94	0.50	11849.43	14162.15	14222.13	12864.69	2.64	1.05	36.12	374.42	13182.46
FTSE All-Share Financials (254)	4547.53	0.20	3785.98	4538.58	4529.18	4968.17	3.71	1.04	25.99	161.32	5055.88
FTSE All-Share Real Estate (55)	855.15	-1.07	744.77	864.36	855.05	1225.31	4.09	3.76	6.49	32.01	900.14
FTSE All-Share Consumer Discretionary (84)	4622.96	0.15	3848.78	4616.26	4603.70	5442.92	2.33	1.11	38.78	102.72	4898.55
FTSE All-Share Consumer Staples (24)	19700.75	0.29	16401.58	19643.10	19688.86	19388.12	3.87	1.13	22.77	692.42	18064.44
FTSE All-Share Industrials (83)	6415.72	0.41	5341.31	6389.47	6378.89	7316.78	2.24	1.30	34.39	135.18	7426.86
FTSE All-Share Basic Materials (22)	8970.21	-0.56	7468.02	9021.08	8939.04	7947.21	6.06	2.00	8.25	536.92	12226.04
FTSE All-Share Energy (13)	8591.62	0.98	7152.83	8508.43	8539.84	6090.63	3.50	2.74	10.42	302.44	10453.53
FTSE All-Share Utilities (10)	8689.04	-0.34	7233.94	8718.46	8723.60	8432.15	4.42	0.56	40.19	361.80	13231.13
FTSE All-Share Software and Computer Services (18)	2207.79	-0.42	1838.07	2217.12	2214.19	2513.05	1.88	0.88	60.41	43.04	3383.63
FTSE All-Share Technology Hardware and Equipment (3)	5203.07	3.25	4331.74	5039.46	5509.39	6445.02	1.71	1.19	49.10	78.21	6724.54
FTSE All-Share Telecommunications Equipment (1)	632.17	-0.07	526.30	632.61	634.85	630.29	1.94	2.31	22.27	11.51	903.63
FTSE All-Share Telecommunications Service Providers (5)	2373.55	0.52	1976.07	2361.30	2382.27	2855.85	7.07	1.01	13.96	155.61	3305.80
FTSE All-Share Health Care Providers (3)	11046.72	0.70	9196.79	10969.46	10995.55	8309.65	0.53	4.88	38.81	58.27	10253.14
FTSE All-Share Medical Equipment and Services (2)	5553.07	1.00	4623.13	5497.89	5454.88	5980.90	2.57	0.97	40.30	142.76	5364.06
FTSE All-Share Pharmaceuticals and Biotechnology (9)	20324.83	0.47	16921.15	20229.78	20329.29	18213.84	2.67	1.04	35.89	539.80	16950.71
FTSE All-Share Banks (12)	3155.43	0.32	2627.01	3145.48	3129.90	3035.78	4.12	2.61	9.30	128.47	2792.42
FTSE All-Share Finance and Credit Services (8)	11047.03	0.37	9197.05	11006.08	11175.92	9799.77	1.89	2.05	25.81	208.86	14843.29
FTSE All-Share Investment Banking and Brokerage Services (31)	8766.28	0.03	7298.24	8763.22	8685.40	10713.90	5.03	1.52	13.03	387.97	12311.81
FTSE All-Share Closed End Investments (190)	11799.74	0.16	9823.71	11780.54	11799.93	14434.71	2.66	-2.76	-13.64	291.14	7387.92
FTSE All-Share Life Insurance (6)	6714.57	-0.16	5590.12	6725.32	6700.13	8139.91	4.56	1.08	20.27	294.59	8216.93
FTSE All-Share Nonlife Insurance (7)	3669.85	0.54	3055.28	3650.11	3630.83	3558.62	3.90	1.24	20.68	130.27	7815.46
FTSE All-Share Real Estate Investment and Services (10)	2152.50	-1.24	1792.03	2179.52	2150.51	3041.24	2.34	4.11	10.40	41.03	6418.36
FTSE All-Share Real Estate Investment Trusts (45)	2126.90	-1.03	1770.72	2149.13	2126.97	3050.00	4.41	3.73	6.08	87.45	3227.44
FTSE All-Share Automobiles and Parts (2)	1334.83	-1.30	1111.29	1352.41	1351.91	3754.87	0.73	-53.35	-2.57	14.02	1388.67
FTSE All-Share Consumer Services (2)	3031.90	0.69	2524.17	3011.09	3001.33	2627.88	1.26	2.58	30.71	38.43	3845.96
FTSE All-Share Household Goods and Home Construction (12)	8602.40	-0.13	7161.80	8613.50	8542.04	14438.52	8.65	1.60	7.21	665.58	7699.88
FTSE All-Share Leisure Goods (2)	20460.67	0.12	17034.24	20436.22	20414.76	22899.04	3.30	1.59	19.00	831.45	22866.43
FTSE All-Share Personal Goods (4)	28628.02	-0.18	23833.85	28679.17	29624.53	31367.54	1.81	2.94	18.83	402.68	22391.56
FTSE All-Share Media (11)	9563.68	0.23	7962.10	9541.99	9526.59	9890.06	2.32	1.45	29.72	221.42	6729.03
FTSE All-Share Retailers (22)	1933.11	-0.47	1609.38	1942.31	1944.91	2804.42	2.62	3.59	10.62	47.84	2514.24
FTSE All-Share Travel and Leisure (29)	6441.10	0.28	5362.44	6423.19	6356.05	7589.04	0.63	-9.54	-16.53	40.81	6662.00
FTSE All-Share Beverages (5)	28812.71	0.41	23987.61	28695.38	28746.43	30306.36	2.08	2.00	24.01	584.47	23091.01
FTSE All-Share Food Producers (10)	5990.28	2.25	4987.12	5858.62	5814.91	6726.96	2.30	2.55	17.03	95.89	5779.55
FTSE All-Share Tobacco (2)	36479.92	0.92	30370.84	36145.60	36676.46	28158.49	6.50	0.87	17.71	1906.82	34262.62
FTSE All-Share Construction and Materials (15)	7368.48	0.45	6134.52	7335.64	7320.79	8819.06	3.13	0.64	49.53	230.56	8991.03
FTSE All-Share Aerospace and Defense (7)	5154.36	0.72	4291.19	5117.60	5089.13	4587.76	2.29	0.11	397.43	104.10	6286.74
FTSE All-Share Electronic and Electrical Equipment (10)	11102.71	0.23	9243.40	11076.71	11079.41	13763.44	1.58	2.11	29.95	159.06	10978.61
FTSE All-Share General Industrials (8)	5092.33	0.55	4239.54	5064.35	5076.66	5593.48	2.81	1.16	30.66	142.00	6726.14
FTSE All-Share Industrial Engineering (5)	16403.13	0.40	13656.19	16338.23	16511.55	20120.88	1.59	2.01	31.24	261.52	22033.84
FTSE All-Share Industrial Support Services (30)	10063.19	0.16	8377.97	10046.96	9993.90	11976.59	1.91	1.67	31.41	193.76	11587.17
FTSE All-Share Industrial Transportation (8)	5608.85	0.61	4669.57	5574.80	5577.94	7152.66	2.08	2.82	17.03	98.14	5876.60
FTSE All-Share Industrial Materials (1)	15902.97	0.32	502.98	15852.96	16253.03	21954.10	2.07	1.81	26.73	329.06	20087.82
FTSE All-Share Industrial Metals and Mining (9)	8058.22	-0.55	6708.76	8102.63	8029.75	6557.40	6.48	2.01	7.67	517.27	12369.15
FTSE All-Share Precious Metals and Mining (5)	10206.82	-0.82	8497.55	10291.64	10191.22	19738.31	3.51	1.83	15.62	358.99	7196.16
FTSE All-Share Chemicals (7)	13391.85	-0.64	11149.19	13477.81	13340.64	18343.84	2.65	1.80	20.94	324.25	13421.92
FTSE All-Share Oil. Gas and Coal (12)	8340.46	0.98	6943.73	8259.70	8290.18	5910.89	3.50	2.74	10.42	293.60	10524.30
FTSE Sector Indices											
Non Financials (332)	**5037.31**	**0.25**	**4565.33**	**5024.95**	**5024.45**	**4993.64**	**3.50**	**1.61**	**17.80**	**168.33**	**9115.48**

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	7409.36	7431.42	7445.46	7429.00	7414.69	7422.73	7432.57	7441.08	7454.57	7458.45	7406.19
FTSE 250	19411.12	19403.31	19467.76	19478.93	19422.99	19408.20	19403.02	19419.06	19450.27	19493.42	19345.70
FTSE SmallCap	6179.80	6186.70	6192.10	6184.66	6178.28	6177.27	6170.30	6162.39	6173.74	6195.78	6162.39
FTSE All-Share	4071.93	4081.84	4090.31	4083.03	4074.69	4077.88	4082.08	4086.32	4093.61	4094.95	4070.64

Time of FTSE 100 Day's high:15:50:15 Day's Low08:04:45 FTSE 100 2010/11 High: 7672.40(10/02/2022) Low: 6826.15(12/10/2022)
Time of FTSE All-Share Day's high:15:51:00 Day's Low08:05:00 FTSE 100 2010/11 High: 4296.96(10/02/2022) Low: 3712.50(12/10/2022)

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FT 30 INDEX

	Nov 25	Nov 24	Nov 23	Nov 22	Nov 21	Yr Ago	High	Low
FT 30	2533.50	2528.70	2515.50	2498.00	2491.00	0.00	2880.10	2152.10
FT 30 Div Yield	-	-	-	-	-	0.00	3.93	2.74
P/E Ratio net	-	-	-	-	-	0.00	19.44	14.26

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2528.7	2525.4	2525.8	2533.2	2531.5	2528	2523.7	2525.5	2529.5	2535.6	2515.7

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30

FT WILSHIRE 5000 INDEX SERIES

	Nov 25		Nov 25
FT Wilshire 5000	40835.91	FT Wilshire Mid Cap	5552.08
FT Wilshire 2500	5229.12	FT Wilshire Small Cap	5013.38
FT Wilshire Mega Cap	5197.13	FT Wilshire Micro Cap	4850.05
FT Wilshire Large Cap	5256.21		

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FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Oil & Gas Producers	45.48	Consumer Goods	-2.47	Support Services	-16.89
Oil & Gas	44.86	Health Care Eq & Srv	-2.59	Mobile Telecomms	-17.17
Tobacco	24.55	Nonlife Insurance	-6.61	Equity Invest Instr	-17.24
Mining	17.04	Media	-7.05	Telecommunications	-17.41
Aerospace & Defense	16.68	Software & Comp Serv	-7.26	Construct & Material	-18.26
Basic Materials	9.23	Technology	-7.45	Fixed Line Telecomms	-18.39
Pharmace & Biotech	8.65	Travel & Leisure	-7.54	Industrial Eng	-19.27
Health Care	7.89	Beverages	-7.69	Leisure Goods	-19.42
Banks	4.84	Tech Hardware & Eq	-9.11	Electronic & Elec Eq	-24.55
Electricity	4.68	Oil Equipment & Serv	-9.57	Household Goods & Ho	-24.88
Personal Goods	2.88	Financial Services	-10.23	Chemicals	-27.30
FTSE 100 Index	1.38	Financials	-10.94	Food & Drug Retailer	-29.24
Beverages	31.66	Food Producers	-13.35	General Retailers	-29.94
Utilities	-0.22	Industrials	-13.38	Real Est Invest & Tr	-31.21
NON FINANCIALS Index	-0.68	Life Insurance	-13.69	Real Est Invest & Se	-31.75
Gas Water & Multi	-1.86	Consumer Services	-14.75	Industrial Transport	-37.79
FTSE All{HY-}Share Index	-2.27	FTSE SmallCap Index	-16.30	Automobiles & Parts	-63.39
		FTSE 250 Index	-16.76	Industrial Metals &	-78.64

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3I Group PLC	1343	-14.00	International Consolidated Airlines Group S.A.	134.30	0.16
Admiral Group PLC	2034	-94.00	Intertek Group PLC	4042	15.00
Airtel Africa PLC	120.80	-1.50	Jd Sports Fashion PLC	124.50	-0.05
Anglo American PLC	3173.5	-30.50	Kingfisher PLC	242.80	-4.90
Antofagasta PLC	1327.5	-13.50	Land Securities Group PLC	622.80	-9.20
Ashtead Group PLC	5090	4.00	Legal & General Group PLC	256.70	-4.20
Associated British Foods PLC	1575.5	-14.00	Lloyds Banking Group PLC	45.82	-0.50
Astrazeneca PLC	11050	96.00	London Stock Exchange Group PLC	8138	22.00
Auto Trader Group PLC	571.40	-6.00	M&G PLC	192.70	-2.00
Aveva Group PLC	3175	-16.00	Melrose Industries PLC	129.95	-4.60
Aviva PLC	449.20	-7.40	Mondi PLC	1551	-20.50
B&M European Value Retail S.A.	409.80	-0.60	National Grid PLC	1016	-3.50
Bae Systems PLC	811.60	4.80	Natwest Group PLC	254.60	-1.40
Barclays PLC	158.18	-0.88	Next PLC	5706	-46.00
Barratt Developments PLC	399.90	-7.60	Ocado Group PLC	633.80	-16.00
Berkeley Group Holdings (The) PLC	3774	-70.00	Pearson PLC	990.20	11.20
BP PLC	483.55	-4.80	Pershing Square Holdings LTD	2955	40.00
British American Tobacco PLC	3358	2.50	Persimmon PLC	1279.5	-49.00
British Land Company PLC	404.30	-1.40	Phoenix Group Holdings PLC	604.20	-5.60
Bt Group PLC	123.80	-3.10	Prudential PLC	928.40	-15.00
Bunzl PLC	3078	-22.00	Reckitt Benckiser Group PLC	5968	68.00
Burberry Group PLC	2111	-2.00	Relx PLC	2337	12.00
Centrica PLC	94.82	0.88	Rentokil Initial PLC	549.20	1.00
Coca-Cola Hbc AG	2025	-19.00	Rightmove PLC	559.00	-2.20
Compass Group PLC	1847	6.00	Rio Tinto PLC	5363	-16.00
Convatec Group PLC	229.20	-2.20	Rolls-Royce Holdings PLC	88.62	-2.23
Crh PLC	3323	-10.00	Rs Group PLC	931.00	-10.50
Croda International PLC	6904	-34.00	Sage Group PLC	816.00	3.40
Dcc PLC	4410	-38.00	Sainsbury (J) PLC	223.70	-1.50
Dechra Pharmaceuticals PLC	2738	-24.00	Schroders PLC	457.60	-4.10
Diageo PLC	3786	23.50	Scottish Mortgage Investment Trust PLC	763.60	-5.60
Endeavour Mining PLC	1686	3.00	Segro PLC	816.20	-11.80
Entain PLC	1397	-9.50	Severn Trent PLC	2777	-42.00
Experian PLC	2946	1.00	Shell PLC	2360.5	-6.50
F&C Investment Trust PLC	921.00	2.00	Smith & Nephew PLC	1084	-19.50
Flutter Entertainment PLC	11945	150.00	Smith (Ds) PLC	305.90	-2.50
Frasers Group PLC	894.00	6.00	Smiths Group PLC	1611	-4.50
Fresnillo PLC	882.60	-12.80	Smurfit Kappa Group PLC	3016	-37.00
Glaxosmithkline PLC	1394.8	2.40	Spirax-Sarco Engineering PLC	11325	-80.00
Glencore PLC	538.30	4.50	Sse PLC	1698	-27.00
Haleon PLC	288.30	-0.70	St. James's Place PLC	1162.5	-14.50
Halma PLC	2271	2.00	Standard Chartered PLC	579.80	-10.20
Harbour Energy PLC	311.00	1.10	Taylor Wimpey PLC	102.05	-1.95
Hargreaves Lansdown PLC	856.00	-7.60	Tesco PLC	232.60	-2.40
Homeserve PLC	1191	-1.00	Unilever PLC	4155	41.50
HSBC Holdings PLC	488.60	-3.35	Unite Group PLC	952.00	2.00
Imperial Brands PLC	2131	5.00	United Utilities Group PLC	1050.5	-14.00
Informa PLC	607.20	-1.60	Vodafone Group PLC	92.81	-0.25
Intercontinental Hotels Group PLC	4752	-35.00	Whitbread PLC	2598	-34.00
Intermediate Capital Group PLC	1202.5	-29.50	Wpp PLC	872.40	-4.20

FTSE GLOBAL EQUITY INDEX SERIES

Nov 28 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	9515	701.92	-0.1	7.2	-17.1	1124.82	-15.4	2.3
FTSE Global All Cap	9515	701.92	-0.1	7.2	-17.1	1124.82	-15.4	2.3
FTSE Global Large Cap	1906	627.17	-0.2	6.8	-17.4	1036.05	-15.7	2.3
FTSE Global Mid Cap	2262	909.64	0.0	8.5	-15.2	1371.14	-13.5	2.2
FTSE Global Small Cap	5347	936.55	0.1	7.3	-18.2	1349.54	-16.7	2.1
FTSE All-World	4168	412.37	-0.1	7.1	-17.0	699.85	-15.3	2.3
FTSE World	2663	750.58	-0.1	7.1	-16.4	1709.40	-14.7	2.3
FTSE Global All Cap ex UNITED KINGDOM In	9225	741.10	-0.1	6.9	-17.4	1164.78	-15.7	2.2
FTSE Global All Cap ex USA	7705	492.00	-0.3	11.8	-18.0	874.94	-15.5	3.3
FTSE Global All Cap ex JAPAN	8110	732.40	-0.1	6.8	-17.2	1184.04	-15.5	2.3
FTSE Global All Cap ex Eurozone	8852	743.15	-0.1	6.6	-16.9	1164.96	-15.3	2.2
FTSE Developed	2179	689.30	-0.1	6.8	-16.5	1111.99	-14.8	2.1
FTSE Developed All Cap	5827	718.55	-0.1	6.9	-16.6	1142.02	-15.0	2.1
FTSE Developed Large Cap	834	645.82	-0.1	6.4	-16.7	1060.47	-15.1	2.1
FTSE Developed Europe Large Cap	220	382.08	0.0	12.5	-15.0	757.31	-12.3	3.2
FTSE Developed Europe Mid Cap	355	576.40	-0.2	14.7	-25.3	991.39	-23.2	3.0
FTSE Dev Europe Small Cap	746	811.10	-0.2	13.9	-26.6	1339.82	-24.5	3.1
FTSE North America Large Cap	234	863.99	-0.1	3.8	-17.2	1298.02	-15.9	1.7
FTSE North America Mid Cap	422	1138.79	0.2	6.6	-12.9	1581.83	-11.5	1.8
FTSE North America Small Cap	1334	1121.07	0.3	5.3	-15.0	1492.63	-13.9	1.6
FTSE North America	656	566.67	0.0	4.4	-16.4	870.35	-15.1	1.7
FTSE Developed ex North America	1523	262.77	-0.2	12.9	-16.7	503.24	-14.2	3.1
FTSE Japan Large Cap	169	377.21	-0.8	12.5	-17.3	554.53	-15.2	2.5
FTSE Japan Mid Cap	340	529.03	-0.4	11.6	-13.8	738.52	-11.6	2.5
FTSE Global wi JAPAN Small Cap	896	590.34	-0.4	12.3	-15.1	855.72	-12.8	2.7
FTSE Japan	509	155.16	-0.7	12.3	-16.6	255.40	-14.5	2.5
FTSE Asia Pacific Large Cap ex Japan	1087	656.90	-0.3	14.1	-21.2	1197.79	-18.9	3.2
FTSE Asia Pacific Mid Cap ex Japan	867	941.31	-0.1	12.8	-17.0	1654.53	-14.4	3.5
FTSE Asia Pacific Small Cap ex Japan	2114	532.77	-0.2	11.5	-26.8	909.48	-24.8	3.1
FTSE Asia Pacific Ex Japan	1954	523.58	-0.2	13.9	-20.8	1014.61	-18.5	3.3
FTSE Emerging All Cap	3688	689.22	-0.5	10.0	-21.7	1202.44	-19.1	3.8
FTSE Emerging Large Cap	1072	634.21	-0.5	10.5	-22.9	1112.88	-20.3	3.9
FTSE Emerging Mid Cap	917	1010.17	-0.4	8.3	-12.1	1772.67	-9.0	4.0
FTSE Emerging Small Cap	1699	747.59	-0.4	8.3	-22.8	1247.46	-20.3	3.4
FTSE Emerging Europe	111	119.20	0.3	16.9	-71.2	249.31	-70.0	2.8
FTSE Latin America All Cap	262	705.04	-2.4	-2.4	-0.6	1396.10	8.0	11.7
FTSE Middle East and Africa All Cap	329	755.47	-0.2	1.4	-5.2	1383.62	-2.4	3.2
FTSE Global wi UNITED KINGDOM All Cap In	290	318.43	-0.1	13.2	-11.5	651.50	-8.4	3.6
FTSE Global wi USA All Cap	1810	972.67	0.0	4.2	-16.6	1408.53	-15.4	1.6
FTSE Europe All Cap	1461	433.22	0.0	13.0	-19.1	824.27	-16.6	3.1
FTSE Eurozone All Cap	663	418.99	0.0	13.8	-19.2	791.09	-16.7	3.1
FTSE EDHEC-Risk Efficient All-World	4168	473.93	0.1	8.5	-13.2	746.35	-11.2	2.6
FTSE EDHEC-Risk Efficient Developed Europe	575	317.14	-0.2	14.0	-23.2	557.89	-21.0	3.2
Oil & Gas	131	424.71	0.0	6.4	29.6	871.72	35.8	4.5
Oil & Gas Producers	87	423.28	0.0	5.7	33.2	892.66	40.2	4.8

Nov 28 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	24	288.49	-0.1	7.4	23.3	534.62	28.2	4.1
Basic Materials	393	607.77	-0.5	12.4	-9.6	1119.17	-5.8	4.7
Chemicals	195	821.27	-0.2	10.5	-15.2	1452.23	-12.9	3.0
Forestry & Paper	20	256.83	-0.6	4.8	-15.9	518.55	-13.1	3.8
Industrial Metals & Mining	98	491.68	-0.8	14.1	-11.1	941.80	-6.4	7.5
Mining	80	953.28	-0.9	15.3	2.4	1859.04	8.7	6.1
Industrials	803	504.15	0.1	11.2	-16.1	804.52	-14.4	2.0
Construction & Materials	154	576.61	0.0	12.5	-22.0	971.05	-20.3	2.2
Aerospace & Defense	35	892.05	0.7	8.1	11.1	1392.57	12.7	1.5
General Industrials	76	244.90	0.1	14.1	-11.7	433.07	-9.5	2.5
Electronic & Electrical Equipment	157	635.69	-0.2	13.5	-20.9	913.79	-19.7	1.5
Industrial Engineering	158	1010.55	0.0	14.9	-12.6	1606.80	-10.9	1.9
Industrial Transportation	133	929.90	0.0	11.3	-16.3	1513.26	-13.6	3.4
Support Services	90	533.24	0.1	5.9	-24.9	793.56	-23.9	1.5
Consumer Goods	569	553.50	-0.4	6.3	-19.7	930.58	-18.1	2.4
Automobiles & Parts	132	506.45	-0.3	-1.4	-34.5	819.24	-33.4	2.0
Beverages	72	773.25	-0.3	7.2	-4.1	1312.42	-2.3	2.2
Food Producers	134	729.36	-0.1	7.5	-7.1	1257.94	-5.0	2.4
Household Goods & Home Construction	65	527.63	-0.1	11.1	-19.4	889.55	-17.2	2.7
Leisure Goods	53	236.40	-1.6	8.9	-25.8	334.28	-24.8	1.4
Personal Goods	98	893.25	-0.6	11.9	-22.6	1374.64	-21.3	1.9
Tobacco	15	990.97	0.0	6.9	3.1	2805.93	7.9	6.1
Health Care	343	727.13	0.4	6.5	-7.9	1159.14	-6.4	1.7
Health Care Equipment & Services	133	1383.33	0.6	4.5	-16.8	1696.35	-16.2	1.0
Pharmaceuticals & Biotechnology	210	492.51	0.2	7.9	-0.9	844.50	1.3	2.2
Consumer Services	427	532.66	-0.1	2.9	-24.4	760.43	-23.6	1.2
Food & Drug Retailers	69	327.28	0.4	9.7	-4.9	520.64	-2.8	2.3
General Retailers	141	928.93	-0.3	-0.3	-27.3	1269.04	-26.8	1.0
Media	75	304.33	-0.1	3.3	-35.2	437.42	-34.4	1.3
Travel & Leisure	142	448.07	0.2	8.2	-12.6	654.00	-11.7	1.1
Telecommunication	89	132.55	0.0	7.3	-10.6	312.52	-7.1	4.2
Fixed Line Telecommuniations	31	103.71	0.1	6.7	-8.0	280.60	-3.7	5.1
Mobile Telecommunications	58	156.53	0.0	7.7	-11.9	318.13	-8.9	3.7
Utilities	200	321.60	0.3	9.6	-6.3	752.72	-3.4	3.3
Electricity	142	363.81	0.2	8.2	-5.7	838.13	-2.9	3.2
Gas Water & Multiutilities	58	317.80	0.4	13.3	-7.8	770.85	-4.7	3.6
Financials	853	265.30	0.3	10.1	-11.6	510.03	-9.0	3.1
Banks	270	203.08	0.2	7.9	-10.3	435.38	-6.8	4.1
Nonlife Insurance	71	364.46	0.5	11.8	4.0	608.20	6.9	2.8
Life Insurance	51	218.83	0.3	15.0	-9.5	422.24	-5.9	4.0
Financial Services	211	441.06	0.3	11.2	-11.6	669.72	-10.2	1.7
Technology	360	470.15	-0.8	3.9	-30.7	613.71	-30.1	1.1
Software & Computer Services	184	698.14	-0.5	-0.2	-34.7	844.78	-34.4	0.7
Technology Hardware & Equipment	176	424.04	-1.2	8.5	-26.0	595.58	-25.0	1.5
Alternative Energy	20	191.35	-0.6	20.1	-8.2	274.58	-7.8	0.4
Real Estate Investment & Services	142	252.81	0.5	13.1	-23.2	492.84	-21.0	3.1
Real Estate Investment Trusts	108	450.83	0.5	9.1	-24.4	1053.89	-22.2	3.8
FTSE Global Large Cap	1906	627.17	-0.2	6.8	-17.4	1036.05	-15.7	2.3

The FTSE Global Equity Series, launched in 2003, contains the FTSE Global Small Cap Indices and broader FTSE Global All Cap Indices (large/mid/small cap) as well as the enhanced FTSE All-World index Series (large/mid cap) - please see https://research.ftserussell.com/Products/indices/Home/indexfiltergeis?indexName=GEISAC&currency=USD&rtn=CAP&segment=global-developed--emerging. The trade names Fundamental Index® and RAFI® are registered trademarks and the patented and patent-pending proprietary intellectual property of Research Affiliates, LLC (US Patent Nos. 7,620,577; 7,747,502; 7,778,905; 7,792,719; Patent Pending Publ. Nos. US-2006-0149645-A1, US-2007-0055598-A1, US-2008-0288416-A1, US-2010- 0063942-A1, WO 2005/076812, WO 2007/078399 A2, WO 2008/118372, EPN 1733352, and HK1099110). "EDHEC™" is a trade mark of EDHEC Business School As of January 2nd 2006, FTSE is basing its sector indices on the Industrial Classification Benchmark - please see www.ftse.com/icb. For constituent changes and other information about FTSE, please see www.ftse.com. © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence.

UK STOCK MARKET TRADING DATA

	Nov 28	Nov 25	Nov 24	Nov 23	Nov 22	Yr Ago
Order Book Turnover (m)	44.43	47.06	47.06	83.80	360.52	180.43
Order Book Bargains	620373.00	491480.00	491480.00	485815.00	622233.00	670425.00
Order Book Shares Traded (m)	1130.00	1069.00	1069.00	966.00	1236.00	1067.00
Total Equity Turnover (£m)	7383.66	4258.00	4258.00	3884.42	5457.09	9426.35
Total Mkt Bargains	803380.00	638327.00	638327.00	646671.00	792155.00	841689.00
Total Shares Traded (m)	6407.00	6459.00	6459.00	6236.00	7760.00	5779.00

† Excluding intra-market and overseas turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. (u) Unavaliable. (c) Market closed.

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UK RIGHTS OFFERS

Issue price	Amount paid up	Latest renun. date	High	Low	Stock	closing Price p	+or-

There are currently no rights offers by any companies listed on the LSE.

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Aquila Services Group	Int	**5.874**	4.855	**0.302**	0.304	**0.610**	0.620	**0.25000**	0.20000	Dec 20	**0.650**	0.600
Brickability Group	Int	**352.669**	223.503	**15.279**	8.923	**3.900**	1.950	**0.00000**	0.96000	-	**2.040**	2.045
Cerillion	Pre	**32.726**	26.071	**10.895**	7.427	**31.700**	21.800	**6.50000**	5.00000	Feb 8	**9.100**	7.100
Corcel	Pre	**0.000**	0.000	**2.128L**	1.227L	**0.500L**	0.400L	**0.00000**	0.00000	-	**0.000**	0.000
eEnergy Group	Pre	**22.096**	13.596	**2.227L**	0.177L	**0.000**	0.000	**0.00000**	0.00000	-	**0.000**	0.000
Induction Healthcare Group	Pre	**7.908**	1.361	**9.574L**	8.117L	**10.000L**	19.000L	**0.00000**	0.00000	-	**0.000**	0.000
Kinovo	Int	**29.761**	23.760	**1.661**	1.046	**3.450L**	0.900	**0.00000**	0.00000	-	**0.000**	0.500
Puma Alpha VCT	Int			**1.247L**	1.019	**7.840L**	9.200	**0.00000**	0.00000	-	**0.000**	0.000
Windar Photonics	Int	**0.421**	0.306	**0.880L**	0.962L	**0.014L**	0.016L	**0.00000**	0.00000	-	**0.000**	0.000

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period year earlier.
For more information on dividend payments visit www.ft.com/marketsdata

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
11/09	250.00		ITH	Ithaca Energy PLC	197.10	2.10	254.90	190.20	198117.5
10/31	4.00		BWN	Bowen Fintech PLC	6.25	0.25	6.00	5.90	343.8
10/27	10.00		UMR	Unicorn Mineral Resource PLC	18.50	0.00	19.50	10.00	513.5
10/24	1.00		ATN	Eastinco Mining and Exploration PLC	0.95	0.00	1.00	0.90	916.5
10/21	55.00	AIM	SND	Sondrel (Holdings) PLC	60.00	0.00	62.00	51.67	5247.7

§Placing price. *Intoduction. ‡When issued. Annual report/prospectus available at www.ft.com/ir
For a full explanation of all the other symbols please refer to London Share Service notes.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ Bank	24.72	-0.10	28.33	20.78	5.90	10.72	49471.62
BHP Group	43.89	-0.31	53.72	35.83	9.05	10.67	148652.79
CmwBkAu	108.48	-0.72	109.20	86.98	3.12	21.11	122744.84
CSL	300.34	0.62	312.92	240.10	0.97	44.50	96897.5
NatAusBk	31.59	0.10	33.75	25.43	2.75	17.41	66631.72
Telstra	4.01	0.01	4.20	3.62	2.41	33.76	30999.14
Wesfarmers	48.52	-0.64	60.78	40.03	3.54	25.81	36806.98
Westpac Bank	23.76	-0.23	24.67	18.80	3.61	17.89	55655.99
Woolworths	34.99	-0.09	41.13	31.67	2.98	41.30	28477.72
Belgium (€)							
AnBshInBv	56.18	1.61	58.72	45.56	0.92	28.82	101474.76
KBC Grp	51.62	-1.62	81.70	45.53	6.48	8.63	22374.93
Brazil (R$)							
Ambev	15.95	0.18	17.07	12.81	3.66	23.28	46753.89
Bradesco	13.17	-0.01	17.72	12.69	6.52	5.89	11938.18
Cielo	4.78	-	6.22	2.01	3.15	15.63	2416.91
ItauHldFin	22.19	-0.17	26.04	18.86	3.61	8.49	20476.7
Petrobras	28.20	0.71	42.08	25.53	17.60	3.88	39060.38
Vale	81.50	0.60	107.11	61.90	16.48	3.52	72486.24
Canada (C$)							
Bausch Hlth	9.07	-0.07	36.26	5.10	-	-2.88	2443.25
BCE	64.14	-0.01	74.09	55.66	5.16	22.69	43541.9
BkMontrl	130.84	-1.28	154.47	113.73	3.27	10.64	65966.07
BkNvaS	71.14	-0.22	95.00	63.19	4.93	9.41	63091.84
Brookfield	61.50	-0.58	79.04	51.07	1.01	21.55	74154.54
CanadPcR	108.48	-0.02	109.85	86.12	0.66	27.46	75111.03
CanImp	64.45	-0.65	167.50	55.35	8.81	4.72	43467.42
CanNatRs	80.25	-0.27	88.18	48.42	2.35	13.14	66148.97
CanNatRy	170.68	1.51	171.48	137.26	1.36	26.21	86034.16
Enbridge	55.64	-0.30	59.69	46.88	5.67	20.51	83865.69
GtWesLif	31.90	-0.32	41.50	27.99	5.72	9.47	22127.52
ImpOil	76.39	-0.18	79.83	41.04	1.27	23.22	34394.54
Manulife	23.70	-0.33	28.09	20.81	4.67	7.08	33312.77
Nutrien	110.07	-0.09	147.93	84.37	2.00	16.70	42879.81
RylBkC	134.03	-0.78	149.60	116.75	3.14	12.58	138303.47
SHOP	51.05	1.87	212.00	33.00	-	1.87	37951.76
Suncor En	46.91	-0.47	53.62	28.77	2.12	17.92	47281.42
ThmReut	156.80	1.27	157.24	119.23	1.23	11.42	56130.99
TntoDom	89.87	-1.15	109.08	77.27	3.44	11.90	121396.52
TrnCan	65.51	-0.46	74.44	54.60	5.02	37.26	49349.27
China (HK$)							
AgricBkCh	2.50	-0.05	3.15	2.22	8.43	3.31	9829.35
Bk China	2.69	-0.05	3.20	2.51	8.17	3.36	28771.92
BkofComm	4.32	-0.12	5.74	3.84	8.00	3.60	19346.16
BOE Tech	0.81	0.04	0.86	0.57	-	13.18	20.61
Ch Coms Cons	3.69	-0.03	5.17	3.09	5.45	3.09	2085.43
Ch Evrbrght	2.27	-0.05	3.11	2.04	10.42	3.10	3681.27
Ch Rail Cons	4.63	0.06	5.95	3.75	5.59	2.48	1229.62
Ch Rail Gp	4.22	-0.07	5.88	3.48	4.82	3.43	2271.02
ChConstBk	4.59	-0.11	6.23	4.12	7.99	3.37	141149.01
China Vanke	14.58	-0.26	21.70	9.96	9.65	6.63	3555.46
ChinaCitic	3.29	-0.12	4.08	2.92	8.42	3.08	6262.71
ChinaLife	10.76	-0.46	15.04	8.53	6.27	4.75	10241.21
ChinaMBank	35.00	-1.25	70.80	25.40	4.03	6.51	20552.5
ChinaMob	51.60	-0.25	58.65	45.90	6.17	8.03	135037.82
ChinaPcIns	16.28	-0.46	25.90	12.10	7.97	5.35	5779.15
ChMinsheng	2.53	-0.05	3.29	2.19	9.60	3.30	2692.53
ChMrchSecs	13.17	0.02	18.56	12.06	3.44	11.33	13575.52
Chna Utd Coms	4.18	0.01	4.22	3.30	2.78	20.21	17974.61
ChShenEgy	22.95	-0.65	27.65	16.06	8.82	7.02	9914.6
ChShpbldng	3.61	-0.04	4.33	3.36	-	-258.68	11072.16
ChStConEng	5.64	-0.10	6.40	4.63	3.95	4.21	31986.34
ChUncHK	4.10	-0.03	4.43	3.27	3.79	9.11	16046.27
CNNC Intl	6.28	-0.06	8.92	5.78	2.06	15.82	16441.13
CSR	3.07	0.01	3.73	2.37	6.66	8.51	1716.43
Daqin	6.76	-0.04	7.25	5.95	7.37	9.87	13957.83
GuosenSec	8.90	-0.11	11.70	8.43	2.68	9.86	10910.85
HaitongSecs	4.47	-0.06	7.34	3.77	6.36	4.90	1949.42
Hngzh HikVDT	30.37	-0.53	55.55	28.10	2.73	16.09	38701.88
Hunng Pwr	3.71	0.04	5.74	2.62	5.26	-4.20	2230.52
IM Baotou Stl	1.95	-0.02	3.21	1.75	-	32.00	8578.82
In&CmBkCh	3.78	-0.07	4.94	3.37	7.94	3.49	41964.05
IndstrlBk	16.73	-0.28	23.22	15.01	4.81	4.42	48269.16
Kweichow	1509.88	-12.13	2216.96	1359	1.33	32.78	263420.73
Midea	0.34	-0.03	0.60	0.33	-	-3.67	12.90
New Ch Life Ins	16.94	-0.26	24.70	12.04	8.94	3.24	2240.67
PetroChina	3.39	-0.06	4.49	3.01	6.96	6.90	9148.69
PingAnIns	41.85	-2.00	69.40	31.30	5.92	6.71	39866.58
PngAnBnk	11.81	-0.36	19.06	10.39	1.53	6.80	31829.17
Pwr Cons Corp	7.74	0.05	9.81	5.99	1.19	15.51	11815.32
SaicMtr	14.36	-0.29	22.14	13.77	4.30	6.93	23301.03
ShenwanHong	0.09	0.00	0.18	0.05	-	2.69	101.39
ShgPdgBk	7.07	-0.10	8.81	6.64	6.75	4.36	28820.9
Sinopec Corp	3.50	-0.06	4.28	3.06	3.94	4.26	11397.5
Sinopec Oil	1.98	-0.01	2.37	1.70	-	634.50	3731.44
Denmark (kr)							
DanskeBk	126.80	-0.60	133.25	91.28	1.53	8.94	15284.97
MollerMrsk	15250	-245.00	24070	13185	2.17	2.56	17851.79
NovoB	858.40	9.40	864.40	604.40	1.06	42.58	209133.5

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Finland (€)							
Nokia	4.58	-0.10	5.71	4.12	-	16.25	27134.77
SampoA	47.62	-0.45	48.74	35.85	3.49	10.42	26393.4
France (€)							
Airbus Grpe	107.36	-6.46	120.36	86.52	-	20.24	87985.37
AirLiquide	140.94	-0.56	153.40	114.48	1.90	26.75	76700.15
AXA	27.10	-0.17	29.09	20.34	5.13	9.39	65838.01
BNP Parib	52.80	-0.53	68.07	40.67	4.93	7.82	67763.3
ChristianDior	690.00	-1.00	733.50	513.00	0.99	25.90	129501.01
Cred Agr	9.63	-0.11	14.27	8.09	8.08	5.41	30458.19
Danone	50.29	-0.18	58.24	46.48	3.75	17.60	35338.9
EDF	12.00	-	12.48	6.64	3.95	9.49	48492.87
Engie SA	14.37	-0.06	14.68	9.79	3.58	10.41	36391.15
EssilorLuxottica	175.85	0.65	188.64	132.70	0.60	55.15	81806.81
Hermes Intl	1496	17.50	1678	957.60	0.30	66.05	164209.57
LOreal	352.70	2.45	433.65	300.45	1.10	44.19	196829.25
LVMH	698.70	-1.50	738.50	535.00	0.97	30.09	365602.9
Orange	9.88	-0.05	11.94	8.93	5.90	3373.85	27334.34
PernodRic	186.40	-0.50	214.00	166.60	1.63	28.94	49992.6
Renault	33.39	-0.38	38.07	20.47	-	-25.64	10266.66
Safran	115.30	-1.92	117.62	87.85	0.36	1186.08	51219.22
Sanofi	87.89	0.35	106.08	76.45	3.54	18.28	115827.7
Sant Gbn	44.21	-1.10	64.82	35.20	2.99	10.88	23707.98
Schneider	141.08	-1.24	173.78	110.02	1.79	25.60	83772.41
SocGen	24.01	-0.29	37.68	18.34	2.24	4.17	21216.83
Total	57.74	-0.70	59.15	40.09	4.55	11.41	157239.91
UnibailR	52.08	-0.67	73.09	39.68	-	-7.63	7513.86
Vinci	96.79	-0.29	103.74	80.74	2.70	22.08	60179.87
Vivendi	8.65	-0.05	12.16	7.59	6.74	-15.90	9974.83
Germany (€)							
Allianz	203.80	-1.55	232.50	156.22	4.58	13.24	85462.63
BASF	48.91	-0.70	69.15	37.90	6.56	8.33	46708.45
Bayer	55.75	0.30	67.99	43.91	3.49	56.22	56947.23
BMW	83.44	-0.52	97.60	67.58	2.21	4.57	52227.12
Continental	56.94	-0.28	101.08	44.44	-	9.03	11841.02
Deut Bank	10.21	-0.18	14.64	7.46	-	10.33	21931.94
Deut Tlkm	19.69	-0.07	19.86	14.47	2.96	23.29	102106.86
DeutsPost	38.09	-0.19	56.91	29.68	3.53	9.92	49071.78
E.ON	9.09	-0.04	12.54	7.28	5.03	5.19	24952.99
Fresenius Med	29.79	-0.13	63.66	26.19	4.37	9.26	9075.56
Fresenius SE	25.84	0.14	38.11	19.76	3.39	8.40	15005.35
HenkelKGaA	64.50	0.15	74.75	56.55	2.76	17.65	17422.91
Linde	329.70	-1.30	334.70	244.00	1.10	52.69	169476
Mercedes-Benz	61.51	-0.86	77.90	50.19	2.13	6.33	68421.45
MuenchRkv	295.30	-3.20	299.20	205.15	3.23	14.51	43015.71
SAP	104.90	-1.12	125.26	81.35	1.71	24.19	133992.64
Siemens	131.54	-0.52	154.70	93.67	2.59	20.35	116253.37
Volkswgn	180.75	-2.30	282.60	158.80	2.58	6.28	55457.63
Hong Kong (HK$)							
AIA	72.30	-2.25	92.50	57.25	1.64	18.62	109344.43
BOC Hold	24.15	-0.95	32.75	23.20	4.58	12.47	32659.21
Ch OSLnd&Inv	19.84	-0.66	27.35	14.58	5.40	4.96	27774.83
ChngKng	46.40	-0.95	57.00	42.90	3.40	10.68	21396.62
Citic Ltd	7.64	-0.21	9.26	6.96	6.28	3.56	28427.59
Citic Secs	14.68	-0.10	21.32	11.82	2.90	7.61	4919.69
CK Hutchison	43.40	-0.15	60.45	38.80	4.68	5.53	21286.07
CNOOC	10.06	-0.18	12.54	7.55	4.01	8.83	57359.6
HangSeng	117.80	-5.60	169.50	110.00	4.62	19.07	28806.89
HK Exc&Clr	279.00	-8.60	483.60	208.20	2.92	31.65	45244.56
MTR	37.05	-0.20	43.70	33.45	2.96	26.99	29391.57
SandsCh	18.80	1.46	24.90	12.50	-	-20.89	19461.53
SHK Props	91.05	-1.15	99.55	83.10	4.85	10.47	33747.69
Tencent	270.00	-3.00	488.00	198.60	0.53	10.69	330892.76
India (Rs)							
Bhartiartl	837.40	-9.45	860.55	628.75	-	183.33	61066.53
HDFC Bk	1600.25	-17.40	1722.1	1271.6	-	27.82	109232.57
Hind Unilevr	2525.2	-12.25	2734	1927	1.24	69.37	72650.54
HsngDevFin	2658.7	-22.65	2933.8	2026	0.84	23.21	59229.95
ICICI Bk	937.40	7.10	943.80	642.15	0.21	30.50	80040.23
Infosys	1623.4	-12.25	1923.3	1360	1.82	32.89	83646.32
ITC	340.05	-0.25	361.45	207.00	3.09	28.97	51674.59
L&T	2064.45	1.70	2095.8	1456.35	0.85	35.11	35523.29
OilNatGas	139.60	-0.95	189.80	119.85	6.37	4.05	21504.35
RelianceIn	2707.55	89.95	2856.15	2222	0.25	31.77	224315.3
SBI NewA	608.60	1.20	622.70	430.70	0.64	17.40	66507.72
SunPhrmInds	1034.75	0.90	1070.95	733.70	0.71	39.54	30400.25
Tata Cons	3395.25	5.60	3920	2950.1	1.04	33.25	152121.66
Israel (ILS)							
TevaPha	30.25	0.20	37.23	23.83	-	26.05	9815.7
Italy (€)							
Enel	5.07	-0.09	7.07	3.96	7.03	24.26	53593.96
ENI	14.02	-0.28	14.85	10.43	4.68	6.07	52552.3
Generali	16.71	-0.23	21.55	13.67	8.55	9.65	27461.62
IntSPaolo	2.12	-0.04	2.92	1.58	1.68	67.46	42749.16
Unicred	13.10	-0.02	15.93	7.75	0.89	20.01	30473.12
Japan (¥)							
AstellasPh	2142	-3.00	2205	1739	2.30	30.83	28332.39
Bridgestne	5234	2.00	5509	4042	3.40	11.38	26913.77
Canon	3188	-14.00	3516	2467	3.28	14.75	30635.39
CntJpRwy	16760	115.00	17920	14660	0.83	-30.05	24875.25

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Denso	7684	-17.00	9575	6549	1.95	20.13	43622.38
EastJpRwy	7786	8.00	8280	6373	1.38	-7.47	21200.92
Fanuc	20445	-35.00	25300	18740	2.37	23.25	29741.98
FastRetail	80070	180.00	88230	54310	0.70	35.94	61193.25
Fuji Hvy Ind	2308.5	-16.50	2684	1664.5	2.60	25.36	12793.27
Hitachi	7391	-27.00	7463	4750	1.67	10.36	51577.61
HondaMtr	3352	-18.00	3755	3043	4.12	6.78	43747.32
JapanTob	2827	-4.50	2848	2000	5.18	13.76	40736.34
KDDI	4124	18.00	4636	3237	3.12	13.21	68420.24
Keyence	59530	-200.00	74710	44880	0.36	47.57	104313.22
MitsbCp	4608	-84.00	4845	3383	3.21	9.83	48941.68
MitsubEst	1005.47	-4.21	1013.24	876.51	-	-	-
MitsubishiEle	1413	-9.50	1518	1225.5	3.03	12.08	21859.54
MitsuiFud	972.73	6.72	978.30	684.38	-	-	-
MitUFJFin	751.90	-6.80	828.30	601.40	3.70	7.29	71953.08
Mizuho Fin	1701.5	-7.50	1725.5	1397	4.92	7.78	31128.89
Murata Mfg	7571	-111.00	9410	6604	1.70	14.53	36863.08
Nippon T&T	3879	-7.00	4128	3054	2.90	11.67	101226.89
NipponTT	3879	-7.00	4128	3054	2.90	11.67	101226.89
Nissan Mt	502.00	-2.40	643.00	436.50	-	15.24	15265.65
Nomura	500.40	-2.10	562.20	460.30	4.92	-32.17	11658.03
Nppn Stl	2178	-80.50	2318.5	1690.5	3.93	3.21	14912.64
Panasonic	1279	-7.00	1325	1006.5	2.09	12.09	22614.21
Seven & I	5702	-3.00	6083	4552	1.93	20.29	36416.96
ShnEtsuCh	17660	-140.00	20200	14185	1.76	15.81	52287.9
Softbank	6042	-37.00	7180	4210	0.78	4.85	75003.33
Sony	11510	-90.00	14745	9213	0.56	13.74	104579.07
SumitomoF	4671	-113.00	4816	3672	4.59	8.50	46263.79
Takeda Ph	4036	1.00	4063	2993	4.78	13.54	46011.21
TokioMarine	2890	-54.00	2970.5	1886	8.16	4.39	42477.04
Toyota	2033	-21.50	2375.5	1805	2.69	8.57	238973.78
Mexico (Mex$)							
AmerMvl	19.70	-0.08	21.44	15.66	1.66	15.87	43321.05
FEMSA UBD	154.60	0.26	169.96	120.63	1.32	125.88	17308.68
WalMrtMex	74.75	0.43	82.93	64.81	0.68	37.10	67616.66
Netherlands (€)							
ASML Hld	566.80	-7.30	733.20	376.10	0.58	45.01	239547.64
Heineken	88.38	-0.82	100.95	77.50	1.08	15.76	52930.65
ING	11.52	-0.11	14.00	7.90	5.06	9.63	44628.41
Unilever	48.12	0.27	48.81	39.36	2.98	24.70	146850.92
Norway (Kr)							
DNB	188.40	-0.85	220.50	168.05	9.28	11.98	29471
Equinor	362.35	-4.15	410.95	218.00	1.37	15.55	115426.75
Telenor	98.72	-1.78	148.80	88.54	9.16	16.60	13859.11
Qatar (QR)							
QatarNtBk	18.92	-0.08	27.00	18.40	2.66	15.33	47986.02
Saudi Arabia (SR)							
AlRajhiBnk	81.80	-	117.40	78.60	2.61	15.58	87073.4
Natnlcombnk	52.20	-0.40	82.00	51.50	2.47	19.69	62205.2
SaudiBasic	82.50	-1.90	141.40	81.10	3.50	12.06	65863.89
SaudiTelec	38.00	-1.05	48.88	37.10	9.36	7.55	50562.15
Singapore (S$)							
DBS	34.45	-0.30	37.49	29.45	3.24	14.70	64424.2
JardnMt US$	47.29	-0.44	62.10	42.60	3.23	8.85	13705.78
OCBC	12.31	0.06	13.54	10.98	3.09	12.77	40196.24
SingTel	2.70	-	2.88	2.31	2.51	47.43	32385.82
UOB	30.30	0.05	33.33	25.47	2.96	14.03	36870.12
South Africa (R)							
Firstrand	66.96	-0.13	79.34	54.34	3.74	12.53	21938.31
MTN Grp	135.52	-0.26	211.49	115.46	-	19.10	14914.58
Naspers N	2477.82	31.94	2853.25	1392.5	0.23	13.78	63027.99
South Korea (KRW)							
HyundMobis	208500	-1000.00	265500	189500	1.92	8.11	14667.74
KoreaElePwr	20000	-150.00	25100	16500	6.14	-11.65	9579.77
SK Hynix	83100	-2000.00	134000	80400	1.86	5.93	45138.59
SmsungEl	60100	-900.00	80800	51800	2.41	10.38	267699.26
Spain (€)							
BBVA	5.54	-0.10	6.12	3.97	6.52	7.76	34734.74
BcoSantdr	2.80	-0.03	3.48	2.32	2.65	5.77	48937.21
CaixaBnk	3.54	-0.04	3.64	2.22	0.74	23.92	29635.37
Iberdrola	10.76	-0.07	11.49	8.47	3.81	18.98	71144.18
Inditex	24.76	-0.20	30.30	18.55	0.87	26.86	80235.71
Repsol	14.39	-0.28	16.23	9.60	4.05	9.03	21730.75
Telefonica	3.61	-0.04	5.06	3.24	9.32	2.71	21677.35
Sweden (SKr)							
AtlasCpcoB	117.00	-1.40	133.60	22.08	6.42	7.66	17421.33
Ericsson	65.00	-0.59	117.32	58.81	3.56	9.39	19050.97
H & M	116.56	-2.74	191.86	98.25	5.56	15.74	16241.61
Investor	193.28	-1.96	228.75	158.22	1.86	8.15	33592.87
Nordea Bk	108.70	-0.76	113.78	85.25	13.83	12.43	38735.6
SEB	119.00	-0.40	136.15	91.64	8.73	9.75	24458.76
SvnskaHn	103.45	-0.85	107.45	80.88	4.97	9.95	19192.31
Swedbank	166.55	-1.10	189.88	124.50	8.99	8.72	17985.4
Telia Co	29.15	-0.30	41.70	27.93	7.06	10.08	11372.33
Volvo	190.68	-4.58	218.65	148.24	3.51	12.17	28894.12
Switzerland (SFr)							
ABB	29.49	-0.42	33.86	23.84	2.60	14.58	61309.28
CredSuisse	3.01	-0.13	9.26	2.97	3.06	-4.87	8442.68
Nestle	113.50	0.50	128.90	103.42	2.23	20.32	330273.54

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Novartis	83.28	0.25	88.42	73.01	3.34	9.33	211821.49
Richemont	117.30	2.50	146.10	90.28	1.54	28.83	64790.86
Roche	312.40	1.00	404.20	298.60	2.60	21.58	232242.3
Swiss Re	83.78	1.20	102.20	68.18	6.51	20.87	28146.58
Swisscom	508.40	2.80	587.40	443.40	3.99	15.59	27867.42
UBS	17.30	-0.19	19.90	13.10	1.85	9.18	64503.02
Zurich Fin	451.90	1.00	461.70	376.00	4.09	15.52	71946.4
Taiwan (NT$)							
Chunghwa Telecom	110.50	-2.00	132.50	105.50	3.86	24.17	27639.47
Formosa PetChem	84.00	-2.90	103.50	75.20	0.70	16.26	25801.06
HonHaiPrc	100.00	-0.50	116.00	99.50	3.99	10.13	44699.83
MediaTek	703.00	-24.00	1200	533.00	5.24	10.05	36255.27
TaiwanSem	480.50	-17.50	650.00	370.00	2.21	19.21	401745.86
Thailand (THB)							
PTT Explor	33.25	-0.50	41.25	32.75	5.75	9.27	26702.97
United Arab Emirates (Dhs)							
Emirtestele	24.30	0.70	38.98	11.60	2.75	27.17	57535.64
United Kingdom (p)							
Anglo American	3173.5	-30.50	4292.5	2487.5	5.62	6.28	51100.96
AscBrFd	1575.5	-14.00	2063	1223	0.39	26.04	14991.39
AstraZen	11050	96.00	11540	8090.32	1.87	1870.98	206124.69
Aviva	449.20	-7.40	606.58	341.92	4.75	59.11	15158.2
Barclays	158.18	-0.88	209.45	132.06	1.90	3.84	30192.1
BP	483.55	-4.80	503.30	310.53	3.26	17.54	105966.94
BrAmTob	3358	2.50	3645	2514	6.42	11.36	90506.03
BT	123.80	-3.10	201.40	113.80	-	12.02	14799.76
Compass	1847	6.00	1970.5	1450	0.76	44.94	39061.53
Diageo	3786	23.50	4097	3282.5	1.92	29.12	103640.47
GlaxoSmh	1394.8	2.40	2753.96	1280.92	5.74	16.11	68296.57
Glencore	538.30	4.50	548.30	346.40	1.65	19.71	83498.05
HSBC	488.60	-3.35	567.20	409.85	3.31	10.67	117453.38
Imperial Brands	2131	5.00	2185	1434.23	6.48	7.12	24191.95
Jardine Mathes.	62.50	-	60.50	46.89	2.44	11.70	18114.01
LlydsBkg	45.82	-0.50	56.00	38.10	5.61	6.36	37101.92
LSE Group	8138	22.00	8612	6230	0.94	83.21	49874.58
Natl Grid	1016	-3.50	1271.45	844.29	4.84	23.68	44768.88
Natwest Group	254.60	-1.40	284.42	196.92	4.12	10.02	29995.64
Prudential	928.40	-15.00	1354.5	782.40	1.27	15.08	30727.77
ReckittB	5968	68.00	6824	5400	2.93	-25.82	51417.87
RELX	2337	12.00	2474	2056	2.04	30.83	53892.39
RioTinto	5363	-16.00	6343	4436.95	9.37	5.61	80672.34
RollsRoyce	88.62	-2.23	161.91	64.44	-	60.29	8926.97
Shell PLC	2360.5	-6.50	2527	1534.2	2.56	12.44	200897.25
StandCh	579.80	-10.20	641.00	406.20	1.53	13.00	20205.09
Tesco	232.60	-2.40	304.10	194.35	3.93	11.84	20735.35
Unilever♦	4155	41.50	4178	3267.5	3.48	21.33	126800.82
Vodafone	92.81	-0.25	141.60	89.87	8.34	-207.63	30671.84
WPP	872.40	-4.20	1231.5	713.00	3.04	16.62	11247.37
United States of America ($)							
21stC Fox A	31.19	-0.10	44.95	28.02	1.34	14.21	9434.18
3M	126.59	-2.45	179.18	107.07	4.16	14.07	69971.73
AbbottLb	105.67	-1.29	142.60	93.25	1.51	30.17	184243.44
Abbvie	159.37	-0.25	175.91	115.10	2.90	27.80	281842.74
Accenture	292.72	-3.69	417.37	242.95	1.12	33.44	194592
Activision Bli.	74.40	0.93	82.00	56.40	0.56	24.33	58227.32
Adobe	333.04	-1.26	694.89	274.73	-	36.86	154830.3
Advanced Micro	74.07	-1.07	164.46	54.57	-	32.43	119427.22
AEP	95.11	-0.36	105.60	80.22	2.80	21.57	48871.11
Aflac	71.70	-0.80	72.70	52.07	1.64	12.62	44582.24
AirProd	308.03	-1.88	311.13	216.24	1.73	36.40	68341.38
Allstate	134.24	-1.18	144.46	106.11	2.15	8.89	35601.73
Alphabet	96.41	-1.05	151.55	83.34	-	0.97	575834.83
Altria	45.34	0.60	57.05	40.35	6.90	38.06	81248.15
Amazon	95.21	1.80	181.68	85.87	-	1.65	971248.49
AmerAir	14.24	-0.27	21.42	11.65	-	-4.28	9251.34
AmerExpr	152.41	-1.74	199.55	130.65	1.09	16.65	113886.18
AmerIntGrp	60.97	-0.11	65.73	47.05	1.87	6.34	45299.49
AmerTower	216.92	-3.16	291.99	178.17	2.13	43.12	100999.17
Amgen	285.70	1.96	296.67	198.64	2.19	31.27	152445.23
Amphenol Corp	78.76	-1.58	88.45	61.67	0.88	35.30	46869.65
Analog Devices	165.67	-1.42	188.20	133.48	1.49	62.59	84375.06
Anthem	482.58	12.71	-	-	-	-	-
Aon Cp	307.24	0.16	341.98	246.21	0.58	62.28	63553.5
Apple	145.16	-2.95	182.13	129.04	0.53	27.08	2309222.41
Applied Materi.	104.76	-1.06	167.06	71.12	0.81	16.26	90126.01
Aptiv	102.56	-3.31	170.76	77.96	-	59.48	27787.23
ArcherDan	97.06	-0.34	98.88	61.80	1.36	22.80	53318.38
AT&T	18.93	-0.20	21.53	14.46	9.77	7.71	134878.48
Autodesk	198.98	-1.68	285.38	163.20	-	99.00	42951.63
AutomData	260.84	-3.12	264.94	192.26	1.31	45.43	108201.6
AutoZone	2568.75	6.63	2575.29	1703.32	-	26.11	48758.54
Avago Tech	527.38	-2.54	677.76	415.07	2.54	33.51	213587.64
BakerHu	28.38	-0.13	39.78	20.42	2.32	73.89	28416.64
Bank of NY	45.01	-0.66	64.63	36.22	2.57	12.23	36380.68
BankAm	37.15	-0.55	50.11	29.31	1.87	11.71	298033.36
Baxter	55.41	-0.59	89.70	49.83	1.74	24.64	27933.33
BectonDick	237.23	-0.83	277.29	215.90	1.26	46.18	67224.3
BerkshHat	476272.11	-2403.44	544389.26	393012.25	-	9.01	284251.58
Biogen	290.85	-14.30	307.53	187.16	-	31.46	41882.81
BlackRock	727.66	-10.12	934.76	503.12	2.02	21.42	109291.31

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Boeing	173.99	-4.37	223.23	113.02	-	-27.38	103317.21
Booking Holdings	1997.51	12.88	2715.66	1616.85	-	79.78	77482.19
Bristol-Myers	79.37	0.13	81.17	53.22	2.25	28.62	168753.35
Broadcom	527.38	-2.54	677.76	415.07	2.54	33.51	213587.64
Cadence Design	167.38	0.07	194.97	132.32	-	75.33	45913.64
CapOne	100.05	-1.67	160.54	90.27	1.78	4.18	38188.94
CardinalHlth	79.29	0.34	81.57	45.85	2.20	46.22	20784.61
Carnival	9.45	-0.29	23.86	6.11	-	-1.27	10509.52
Caterpillar	234.47	-1.23	239.85	160.60	1.62	22.30	122020.38
Centene Corp	85.22	0.36	98.53	69.51	-	42.05	48256.65
CharlesSch	80.93	-0.68	96.24	59.35	0.79	32.17	146956.39
Charter Comms	388.41	-1.70	693.09	297.66	-	17.86	60464.67
Chevron Corp	180.78	-2.92	189.68	110.73	2.61	24.99	349563.18
Chipotle Mexic.	1526.4	11.20	1776.67	1196.28	-	74.99	42313.51
Chubb	216.00	-0.23	218.99	173.78	1.31	12.61	89650.86
Cigna	323.27	-0.64	331.05	191.74	1.10	23.12	98834.72
Cintas Corp	457.92	1.65	461.44	343.86	0.71	45.17	46499.63
Cisco	48.36	-0.05	64.29	38.61	2.75	19.32	198683.16
Citigroup	47.35	-0.95	69.11	40.01	3.83	5.25	91700.3
CME Grp	173.91	-1.09	256.94	166.58	1.84	26.84	62559.77
Coca-Cola	63.02	0.33	67.20	52.28	2.37	31.51	272530.83
Cognizant	60.77	-0.16	93.47	51.33	1.40	16.88	31228.44
ColgtPlm	76.51	-0.26	85.18	67.84	2.08	33.76	63902.24
Comcast	35.59	-0.06	53.32	28.39	2.50	13.17	153533.99
ConocPhil	124.57	-2.24	138.49	66.06	1.39	23.09	155223.07
Constellation	258.28	0.79	261.53	207.59	1.06	-1308.44	41641.06
Corning	33.28	-0.84	43.47	28.98	2.56	29.25	28148.6
Corteva	65.42	-0.92	68.43	43.74	0.72	31.05	46738.49
Corteva	65.42	-0.92	68.43	43.74	0.72	31.05	46738.49
Costco	534.00	0.34	612.27	406.51	0.53	47.96	236350.61
CrownCstl	138.80	-2.39	208.69	121.71	3.50	58.49	60107.06
CSX	32.00	-0.03	38.63	25.80	1.08	19.88	67266.57
CVS	101.06	-0.20	111.25	86.28	1.76	19.11	132789.5
Danaher	262.55	-4.49	331.69	233.71	0.31	33.70	191126.32
Deere	440.84	-0.63	448.40	283.81	0.79	27.23	133054.17
Delta	34.51	-0.59	46.27	27.20	-	46.60	22127.41
Devon Energy	67.54	-0.81	79.40	35.55	2.59	18.14	44150.9
Digital Realty	108.57	-2.70	176.53	85.76	3.80	20.56	31216.29
DiscFinServ	107.52	-1.21	129.12	87.64	1.55	6.78	29377.23
Disney	96.25	-2.62	157.50	86.28	-	62.96	175469.31
Dollar General	256.03	-1.21	262.21	183.25	0.59	28.06	57752
DominRes	61.05	-0.48	88.78	57.95	3.67	21.53	50871.45
DukeEner	98.81	-0.81	116.33	83.76	3.51	22.55	76089.9
DuPont	69.83	-1.42	84.08	49.52	1.53	24.32	34690.77
Eaton	163.54	-2.57	174.47	122.50	1.65	34.46	65039.86
eBay	44.63	-0.41	73.60	35.92	1.43	132.14	24220.01
Ecolab	147.49	-1.46	236.89	131.04	1.18	42.44	42009.29
Edwards Lifesc.	75.48	-0.88	131.73	67.13	-	35.68	46666.3
Eli Lilly	366.82	1.57	369.80	231.87	0.82	67.44	348542.55
Emerson	94.67	-1.46	100.00	72.41	1.91	23.25	55984.88
EOG Res	139.06	-3.58	150.88	80.67	1.03	19.58	81682.38
Equinix	666.84	-7.82	847.10	494.89	1.53	135.67	61708.12
EquityResTP	62.72	-0.81	94.32	59.32	3.42	20.59	23703.07
Exelon	40.22	0.15	50.71	29.10	3.38	26.00	39963.34
ExxonMb	111.08	-2.13	114.66	57.96	2.79	23.19	457460.03
Fedex	175.09	-1.61	260.50	141.92	1.46	10.60	45561.88
Fidelity NIS	65.96	-0.02	122.06	56.53	2.10	110.76	39139.31
Fiserv	102.30	-0.19	110.94	87.03	-	57.84	64963.37
FordMtr	13.75	-0.34	25.87	10.61	0.65	3.48	54287.83
Franklin	26.39	-0.38	35.18	20.24	3.81	7.85	13183.35
GenDyn	253.04	-0.73	254.99	188.64	1.64	24.65	69471.87
GenElectric	86.75	-1.40	101.91	59.93	0.33	-30.03	94783.5
GenMills	83.35	0.38	83.79	61.41	2.20	24.77	49471.2
GenMotors	39.55	-0.91	67.21	30.33	-	6.64	56181.6
GileadSci	86.00	-0.26	88.20	57.17	2.94	19.63	107864.97
GoldmSchs	383.52	-5.34	401.75	277.84	1.51	7.26	129873.14
Halliburton	36.32	-0.05	43.99	20.77	0.64	22.96	32975.72
HCA Hold	234.43	-4.95	279.02	164.47	0.73	12.46	66275.86
Hew-Pack	29.54	-0.62	41.47	24.08	2.53	6.00	29710.4
Hilton Worldwi.	137.22	-1.03	167.99	108.41	-	105.74	37111.97
HiltonWwde	137.22	-1.03	167.99	108.41	-	105.74	37111.97
HomeDep	322.56	-3.82	420.61	264.51	1.84	23.15	330211.97
Honywell	219.17	-0.88	220.96	166.63	1.53	31.17	147352.86
HumanaInc	540.12	-0.84	571.30	363.73	0.46	26.81	68378.73
IBM	147.66	-0.72	150.46	114.56	3.94	31.89	133498.78
IDEXX Laborato.	402.75	-8.61	664.70	317.06	-	52.69	33354.53
IllinoisTool	225.89	-3.08	248.11	173.52	1.86	29.86	69390.33
Illumina	216.17	-2.82	397.44	173.45	-	48.26	34003.54
Intcntl Exch	106.16	-0.97	138.46	88.60	1.11	16.63	59293.05
Intel	28.89	-0.45	55.00	24.59	4.28	6.69	119246.78
Intuit	388.63	-3.85	697.27	339.36	0.59	54.75	109541.68
John&John	177.13	-0.11	186.69	155.72	2.10	25.52	463103.48
JohnsonCn	66.33	-0.52	81.69	45.52	1.54	34.08	45549.07
JPMrgnCh	135.32	-1.42	164.78	101.28	2.50	9.91	396921.29
Kimb-Clark	133.90	-1.13	144.53	108.74	3.13	28.27	45190.19
KinderM	18.50	-0.14	20.20	15.01	5.34	44.95	41571.99
KLA Corp	380.12	0.10	442.44	250.20	0.91	22.01	53869.97
Kraft Heinz	38.95	0.05	44.87	32.73	3.65	53.44	47711.03
Kroger	49.13	0.09	62.78	40.18	1.42	25.23	35167.56
LasVegasSd	43.36	0.19	48.27	28.88	-	-32.31	33134.25
LibertyGbl	19.74	-0.33	29.08	15.22	-	0.95	3392.49

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Lilly (E)	366.82	1.57	369.80	231.87	0.82	67.44	348542.55
Linde	341.75	-2.67	346.50	262.47	1.10	52.53	168954.21
Lockheed	484.08	0.62	494.66	328.20	2.04	23.38	126863.45
Lowes	209.84	-1.13	263.31	170.12	1.28	19.42	130247.81
Lyondell	84.91	-1.88	117.22	71.46	4.65	5.70	27648.77
Marathon Ptl	124.14	-1.06	127.62	59.55	1.66	69.14	58179.56
Marsh&M	170.35	-1.48	183.14	142.80	1.40	29.48	84492.74
MasterCard	347.45	-3.84	399.92	276.87	0.58	44.62	331398.87
McDonald's	273.95	-1.05	281.67	217.68	1.70	30.70	200647.53
McKesson	384.58	1.24	401.78	215.27	0.41	49.00	54530.94
Medtronic	76.23	-2.89	114.44	76.17	2.91	23.40	101319.63
Merck	108.57	1.07	108.90	71.50	2.16	25.13	275267.94
Meta	196.64	0.99	384.33	169.00	-	15.41	450997.53
Metlife	76.31	-0.65	77.36	57.05	2.21	11.74	59869.38
Microsoft	243.11	-4.38	344.30	213.43	0.84	29.13	1812256.97
Mnstr Bvrg	103.58	0.21	104.49	71.78	-	45.35	54042.2
MondelezInt	66.55	-0.15	69.47	54.72	1.78	24.63	90875.08
Monsanto	10.02	0.01	10.02	9.66	-	51.68	250.50
MorganStly	90.22	-0.69	109.73	72.05	2.07	12.64	152481.67
Netflix	284.33	-1.22	676.41	162.71	-	28.46	126530.45
NextEraE	84.72	-0.62	92.91	67.22	1.71	125.22	168360.45
Nike	105.58	-0.38	173.37	82.22	0.99	31.05	133416.45
NorfolkS	250.99	-1.33	296.87	203.65	1.47	23.32	58107.75
Northrop	529.29	1.46	556.27	345.91	1.03	13.68	81464.17
NXP	168.87	-3.83	239.91	132.08	1.18	27.98	43758.81
Occid Pet	69.14	-1.14	77.13	26.05	0.05	37.76	62842.32
Oracle	81.88	-0.84	106.34	60.78	1.40	34.83	220762.1
Pepsico	185.05	0.94	186.62	153.37	2.04	37.92	254945.09
Perrigo	32.03	-0.92	43.90	31.32	2.66	-36.77	4312.51
Pfizer	49.22	0.01	61.71	41.45	2.82	14.09	276287.34
Phillips66	109.58	-1.21	113.53	67.08	2.94	41.51	51788.67
PhilMorris	97.97	-0.29	112.48	82.85	4.45	18.91	151865.57
PNCFin	164.16	-3.50	214.50	143.52	2.60	14.54	66206.84
PPG Inds	131.01	-2.36	172.78	107.06	1.61	32.34	30789.76
ProctGmbl	146.64	-0.09	165.35	122.18	2.17	28.04	349797.71
Prudntl	106.46	-1.31	124.22	85.46	3.84	6.14	39603.12
PublStor	293.95	-4.66	421.76	270.73	2.42	33.51	51628.9
Qualcomm	121.58	-1.87	192.68	101.93	1.97	15.67	136290.62
Raytheon	97.70	0.23	106.02	79.00	1.82	42.61	143624.94
Regen Pharm	743.98	7.75	769.63	538.01	-	11.63	79668.2
S&P Global	353.56	-4.35	484.21	279.32	0.77	31.80	115189.85
Salesforce	153.81	0.46	299.27	136.04	-	115.82	153810
Schlmbrg	50.69	-0.15	56.04	27.65	0.88	43.20	71871.01
Sempra Energy	162.77	-0.69	176.47	119.56	2.40	45.67	51164.04
Shrwin-Will	247.65	-1.87	354.15	195.24	0.79	39.92	64176.87
SimonProp	117.67	-3.03	164.68	86.02	5.40	19.36	38471.71
SouthCpr	57.82	-0.97	79.32	42.42	4.92	14.82	44700.55
Starbucks	98.90	-0.66	117.34	68.39	1.65	30.07	113517.42
StateSt	74.30	-2.76	103.76	58.62	2.61	11.63	27263.65
Stryker	228.50	-4.24	279.28	188.84	1.01	49.34	86470.29
Sychrony Fin	36.57	-0.49	48.57	27.22	2.20	5.42	16474.05
T-MobileUS	150.49	-0.56	154.38	101.51	-	70.26	187232.76
Target	165.71	2.33	254.87	137.16	1.71	13.10	76270.12
TE Connect	125.60	-2.39	164.12	104.76	1.40	19.20	39844.16
Tesla Mtrs	187.53	4.67	390.95	166.19	-	43.06	592173.32
TexasInstr	175.43	-1.64	199.90	144.46	2.13	23.90	159215.31
TheTrvelers	187.95	-0.96	189.53	145.40	1.71	13.04	44045.62
ThrmoFshr	542.26	-8.99	668.94	475.77	0.17	31.35	212671.96
TJX Cos	80.62	-0.41	81.17	53.69	1.16	33.28	93604.09
Truist Financial Corp	45.76	-1.17	66.10	40.01	3.61	11.52	60706.19
Twitter	53.70	0.35	60.16	31.30	-	-224.30	41093.72
UnionPac	210.88	-2.45	278.94	183.70	1.95	21.92	129651.84
UPS	181.12	-1.41	233.72	154.87	2.00	13.88	132181.52
USBancorp	43.95	-0.31	60.50	38.39	3.56	9.69	65296
UtdHlthcre	535.46	-2.16	558.10	438.21	0.93	33.32	500306.55
ValeroEngy	137.39	-1.01	146.81	65.13	2.54	68.10	52967.04
Verizon	38.52	-0.51	55.51	34.55	5.85	8.15	161755.97
VertexPharm	318.80	5.82	323.61	182.66	-	39.81	81833.23
VF Cp	33.54	-0.81	78.17	26.46	5.22	12.37	13030.56
Visa Inc	212.75	-1.04	235.85	174.60	0.56	39.63	346392.99
Walgreen	41.02	-0.65	53.46	30.39	4.16	6.68	35470.31
WalMartSto	153.74	0.67	160.77	117.27	1.28	35.18	417286.94
Walt Disney	96.25	-2.62	157.50	86.28	-	62.96	175469.31
Waste Manage.	164.74	0.28	175.98	138.58	1.24	43.20	67622
WellsFargo	47.19	-0.25	60.30	36.54	1.45	10.73	179817.07
Williams Cos	33.56	-0.34	37.97	24.86	4.34	30.45	40887.48
Workday	148.75	-0.23	285.58	128.72	-	1381.55	29899.71
Yum!Brnds	126.94	0.41	139.85	103.97	1.40	27.41	35757.46
Zoetis	149.32	-0.79	249.27	124.15	0.60	39.34	69591.54
Zoom	73.54	-1.87	235.97	70.44	-	18.21	18455.46
Venezuela (VEF)							
Bco de Vnzla	1.60	0.17	2.14	0.32	132.38	-	544.74
Bco Provncl	4.15	0.10	4.15	1.70	-	0.00	145.28

Closing prices and highs & lows are in traded currency (with variations for that country indicated by stock), market capitalisation is in USD. Highs & lows are based on intraday trading over a rolling 52 week period.
♦ ex-dividend
■ ex-capital redistribution
price at time of suspension

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
BOE Tech	0.81	0.77	0.04	5.19	0.13	19.1	16.44
Ch Rail Cons	4.63	4.57	0.06	1.31	0.51	12.4	15.54
China Vanke	14.58	14.84	-0.26	-1.75	1.58	12.2	22.11
Tesla Mtrs	187.53	182.86	4.67	2.55	19.66	11.7	-17.91
Hunng Pwr	3.71	3.67	0.04	1.09	0.36	10.7	3.62
Chna Utd Coms	4.18	4.17	0.01	0.24	0.40	10.6	23.67
Ch Rail Gp	4.22	4.29	-0.07	-1.63	0.39	10.2	10.44
Ch Coms Cons	3.69	3.72	-0.03	-0.81	0.32	9.5	14.60
Pwr Cons Corp	7.74	7.69	0.05	0.65	0.61	8.6	0.52
Glencore	538.30	533.80	4.50	0.84	41.45	8.3	7.09
SHOP	53.10	49.18	3.92	7.97	4.08	8.3	13.58
ChStConEng	5.64	5.74	-0.10	-1.74	0.41	7.8	14.63
Repsol	14.39	14.67	-0.28	-1.91	0.99	7.3	3.97
Fidelity NIS	65.96	65.98	-0.02	-0.03	4.40	7.1	-22.27
Deere	440.84	441.47	-0.63	-0.14	29.14	7.1	11.09
ChUncHK	4.10	4.13	-0.03	-0.73	0.26	6.8	19.76
Equinor	362.35	366.50	-4.15	-1.13	22.35	6.6	-3.49
Salesforce	153.81	153.35	0.46	0.30	8.96	6.2	-5.64
MitsbCp	4608.00	4692.00	-84.00	-1.79	260.00	6.0	14.03
TokioMarine	2890.00	2944.00	-54.00	-1.83	162.50	6.0	9.68

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
CredSuisse	3.01	3.14	-0.13	-4.16	-0.94	-23.9	-22.36
Midea	0.34	0.36	-0.03	-6.94	-0.04	-9.5	-13.16
Petrobras	27.57	27.49	0.08	0.29	-2.82	-9.3	-22.89
Bausch Hlth	9.28	9.14	0.14	1.53	-0.86	-8.5	2.67
Zoom	73.54	75.40	-1.87	-2.47	-6.73	-8.4	-12.71
Medtronic	76.23	79.12	-2.89	-3.65	-6.06	-7.4	-12.20
HK Exc&Clr	279.00	287.60	-8.60	-2.99	-22.00	-7.3	19.61
Hngzh HikVDT	30.37	30.90	-0.53	-1.72	-2.07	-6.4	1.67
Cielo	4.75	4.78	-0.03	-0.63	-0.32	-6.3	-15.78
Tencent	270.00	273.00	-3.00	-1.10	-17.80	-6.2	27.02
SK Hynix	83100.00	85100.00	-2000.00	-2.35	-5300.00	-6.0	-7.67
Airbus Grpe	107.48	113.82	-6.34	-5.57	-6.70	-5.9	1.41
Vodafone	92.81	93.06	-0.25	-0.27	-5.30	-5.4	-6.97
AIA	72.30	74.55	-2.25	-3.02	-3.80	-5.0	19.55
SandsCh	18.80	17.34	1.46	8.42	-0.82	-4.2	33.43
Volkswgn	180.85	183.05	-2.20	-1.20	-7.75	-4.1	-3.98
Suncor En	45.86	47.38	-1.52	-3.21	-1.80	-3.8	0.00
Illumina	216.17	218.99	-2.82	-1.29	-8.25	-3.7	-7.22
Kweichow	1509.88	1522.01	-12.13	-0.80	-57.25	-3.7	7.77
Autodesk	198.98	200.66	-1.68	-0.84	-7.52	-3.6	-7.97

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Nov 28	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
HCA Inc.	04/24	8.36	BB-	Ba2	BB	113.75	4.24	0.00	0.12	-
High Yield Euro										
Aldesa Financial Services S.A.	04/21	7.25	-	-	B	71.10	28.23	0.00	0.64	25.98
Emerging US$										
Peru	03/19	7.13	BBB+	A3	BBB+	104.40	2.60	-	-	0.34
Colombia	01/26	4.50	-	Baa2	BBB-	109.50	2.33	0.16	0.52	1.28
Brazil	04/26	6.00	-	Ba2	BB-	115.15	2.78	-0.01	0.65	1.73
Poland	04/26	3.25	-	A2	A-	111.22	0.98	0.03	0.16	-0.07
Mexico	05/26	11.50	-	Baa1	BBB-	149.00	1.61	0.00	-0.12	0.56
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Turkey	03/27	6.00	-	B2	BB-	102.88	5.43	0.14	0.83	4.38
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	-	Baa3	BBB	168.12	2.48	0.07	0.05	-
Brazil	02/47	5.63	-	Ba2	BB-	101.48	5.52	0.08	0.80	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Mexico	04/23	2.75	-	Baa1	BBB-	106.48	-0.26	-	-	-0.36
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

BONDS: GLOBAL INVESTMENT GRADE

Nov 28	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
FleetBoston Financial Corp.	01/28	6.88	BBB+	Baa1	A-	129.00	2.54	-0.01	-0.05	-
The Goldman Sachs Group, Inc.	02/28	5.00	BBB+	A3	A	117.21	2.47	0.00	0.32	-
NationsBank Corp.	03/28	6.80	BBB+	Baa1	A-	127.69	2.72	-0.01	0.06	-
GTE LLC	04/28	6.94	BBB+	Baa2	A-	128.27	2.80	0.00	-0.11	-
United Utilities PLC	08/28	6.88	BBB	Baa1	A-	130.43	2.62	-0.07	-0.22	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.46	5.02	0.00	0.02	-
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	121.70	0.93	0.00	0.02	-
Finland	04/31	0.75	AA+	Aa1	AA+	111.08	-0.27	0.00	-0.05	-0.87
Yen										
Mexico	06/26	1.09	-	Baa1	BBB-	98.73	1.34	-0.02	-0.14	0.27
£ Sterling										
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	128.68	3.20	0.00	-0.01	0.40
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	137.45	2.19	-0.03	0.02	-

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

INTEREST RATES: OFFICIAL

Nov 28	Rate	Current	Since	Last
US	Fed Funds	3.00-3.25	21-09-2022	2.25-2.5
US	Prime	6.25	22-09-2022	5.50
US	Discount	3.25	22-09-2022	2.50
Euro	Repo	0.53	01-11-2022	0.374
UK	Repo	3.00	02-11-2022	2.25
Japan	O'night Call	0.00-0.10	01-02-2016	0.00
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25

INTEREST RATES: MARKET

Nov 28 (Libor: Nov 25)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	3.81200	-0.007	2.886	0.026	4.05471	4.73386	5.21871	5.59800
Euro Libor	-0.64957	-0.064	-0.224	0.001	-0.61943	-0.58057	-0.55600	-0.48571
£ Libor	0.18063	-0.005	-0.043	0.015	3.18970	3.63590	4.18380	0.81363
Swiss Fr Libor				-0.002	-0.77540	-0.75300	-0.70280	-0.55320
Yen Libor				0.000	-0.06005	-0.04898	0.03052	0.04867
Euro Euribor				0.014	1.47600	1.92200	2.37400	2.86000
Sterling CDs				0.000	0.50000	0.63000	0.78500	
US$ CDs				0.020	4.10000	4.65000	5.08000	
Euro CDs				0.000	1.53000	1.87000	2.28000	

Nov 28	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	1.15	1.45	1.16	1.46	1.38	1.68	1.72	2.02	2.13	2.43	2.48	2.78
Sterling					0.45	0.55	0.58	0.68	0.71	0.86	0.90	1.05
US Dollar	3.63	3.83	3.65	3.85	4.00	4.20	4.55	4.75	4.98	5.18	5.24	5.44
Japanese Yen	-0.15	0.05	-0.20	0.00	-0.20	0.00	-0.15	0.05	-0.10	0.20	-0.05	0.25

Libor rates come from ICE (see www.theice.com) and are fixed at 11am UK time. Other data sources: US $, Euro & CDs: Tullett Prebon; SDR, US Discount: IMF; EONIA: ECB; Swiss Libor: SNB; EURONIA, RONIA & SONIA: WMBA.

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	196.94	0.24	5.21	-10.40	6.20	-9.47
Corporates(£)	330.00	-0.52	4.61	-16.62	5.70	-16.95
Corporates(€)	210.47	-0.43	2.58	-12.86	3.12	-12.94
Eurozone Sov(€)	216.89	-0.97	2.12	-14.75	2.41	-15.39
Gilts(£)	284.14	-0.95	3.75	-20.96	4.48	-21.49
Overall(£)	290.97	-0.83	3.76	-19.62	4.54	-20.10
Overall(€)	211.41	-0.78	2.18	-14.29	2.45	-14.79
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	680.19	-0.07	-	-	13.61	-15.06
Eurozone Govt Bond	110.04	-0.19	-	-	-0.34	-0.64

CREDIT INDICES

	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	463.65	10.97	-11.15	-80.59	688.92	438.73
Europe 5Y	91.98	2.72	-2.82	-19.56	142.08	86.90
Japan 5Y	79.93	0.24	-3.73	-25.00	119.29	79.45
Senior Financials 5Y	102.06	2.85	-1.82	-18.63	155.06	96.21
Markit CDX						
Emerging Markets 5Y	231.63	-3.78	-23.03	-53.68	335.29	231.63
Nth Amer High Yld 5Y	460.40	3.79	-20.45	-41.39	625.47	456.61
Nth Amer Inv Grade 5Y	78.00	0.52	-3.83	-9.58	110.98	77.48

Websites: markit.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

VOLATILITY INDICES

	Nov 28	Day Chng	Prev	52 wk high	52 wk low
VIX	21.81	1.31	20.50	38.93	16.62
VXD	21.48	1.12	20.36	45.37	3.27
VXN	28.13	1.34	26.79	44.05	9.94
VDAX	21.80	1.43	20.37	93.30	-

† CBOE. VIX: S&P 500 index Options Volatility, VXD: DJIA Index Options Volatility, VXN: NASDAQ Index Options Volatility.
‡ Deutsche Borse. VDAX: DAX Index Options Volatility.

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	-	-	-	-	-	-	-	-
	05/32	1.25	81.52	3.57	0.03	-0.04	-0.51	-
	02/50	1.00	95.59	1.65	0.02	-0.05	-0.31	1.24
Austria	02/29	0.50	89.11	2.40	0.13	-0.04	-0.29	2.58
	02/47	1.50	80.74	2.58	0.10	-0.12	-0.41	2.10
Belgium	06/27	0.80	93.72	2.26	0.14	0.06	-0.04	2.64
	06/47	1.60	79.21	2.78	0.12	-0.12	-0.36	2.01
Canada	03/25	1.25	94.58	3.78	0.00	-0.10	-0.32	2.43
	06/30	1.25	88.95	2.90	-0.02	-0.20	-0.61	1.23
	12/48	2.75	96.04	2.97	-0.01	-0.27	-0.68	0.91
Denmark	11/29	0.50	88.94	2.23	0.12	-0.03	-0.28	2.30
	11/52	0.25	62.04	1.93	0.08	-0.16	-0.57	1.63
Finland	09/24	0.00	96.19	2.19	0.06	0.06	0.17	2.87
	09/29	0.50	88.02	2.43	0.13	-0.05	-0.26	2.62
France	05/28	0.75	92.23	2.27	0.14	0.02	-0.11	2.53
	05/48	2.00	87.43	2.69	0.12	-0.12	-0.38	1.97
Germany	08/29	0.00	87.88	1.94	0.13	-0.01	-0.10	2.35
	08/50	0.00	61.01	1.80	0.09	-0.13	-0.37	1.74
Greece	01/23	3.50	100.36	1.33	0.02	-0.04	0.33	1.58
	01/28	3.75	101.95	3.33	0.08	-0.34	-0.98	2.57
Ireland	-	-	-	-	-	-	-	-
	05/26	1.00	96.09	2.19	0.13	0.03	0.04	2.60
	02/45	2.00	88.65	2.68	0.12	-0.12	-0.38	2.00
Italy	02/25	0.35	95.01	2.73	0.08	0.07	-0.20	2.79
	05/30	0.40	92.62	1.45	0.14	0.04	-0.45	2.11
	03/48	3.45	93.83	3.83	0.15	-0.05	-0.49	2.00
Japan	04/25	0.05	99.95	0.07	0.01	0.01	-0.02	0.00
	12/29	0.10	99.36	0.19	0.04	0.04	-0.06	0.21
	12/49	0.40	78.26	1.36	0.03	0.04	-0.14	0.69
Netherlands	07/27	0.75	94.05	2.11	0.13	0.01	-0.07	2.56
	01/47	2.75	112.15	2.10	0.10	-0.13	-0.46	1.97
New Zealand	05/31	1.50	81.11	4.17	0.00	0.03	-0.39	1.65
	09/40	2.50	119.60	2.35	-0.02	0.05	-0.32	1.66
Norway	08/30	1.38	87.89	3.17	0.07	-0.07	-0.52	1.49
Poland	01/23	2.50	99.30	7.10	0.01	-0.20	0.06	4.40
	07/27	2.50	82.08	7.16	0.25	-0.30	-1.08	3.68
	04/47	4.00	60.15	7.65	0.25	0.30	-0.87	4.13
Portugal	04/27	4.13	107.26	2.36	0.14	0.01	-0.14	2.57
Spain	-	-	-	-	-	-	-	-
	10/29	0.60	87.20	2.65	0.16	-0.01	-0.23	2.42
	10/46	2.90	95.18	3.19	0.13	-0.09	-0.39	2.00
Sweden	06/30	0.13	117.10	-0.26	0.08	-0.03	-0.15	1.57
	03/39	3.50	123.62	1.82	0.08	-0.11	-0.31	1.27
Switzerland	04/28	4.00	115.78	0.96	0.11	0.11	-0.02	1.31
	06/29	0.00	93.81	0.98	0.10	0.10	-0.09	1.24
United Kingdom	07/23	0.75	98.46	3.16	0.08	0.08	0.02	2.69
	07/27	1.25	91.22	3.30	0.11	0.01	-0.45	2.60
	07/47	1.50	68.07	3.43	0.09	-0.06	-0.35	2.32
United States	-	-	-	-	-	-	-	-
	03/25	0.50	91.56	4.34	0.01	-0.01	-0.08	3.27
	02/30	1.50	85.95	3.74	-0.01	-0.11	-0.39	2.15
	02/50	0.25	70.91	1.57	0.00	-0.21	-0.31	-

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

GILTS: UK CASH MARKET

Nov 28	Price £	Red Yield	Change in Yield Day	Change in Yield Week	Change in Yield Month	Change in Yield Year	52 Week High	52 Week Low	Amnt £m
	-	-	-	-	-	-	-	-	-
Tr 0.75pc '23	98.48	3.14	3.29	2.61	8.28	582.61	100.82	97.34	34.36
Tr 0.125pc '24	96.35	3.32	3.11	3.11	6.75	492.86	99.44	94.34	35.55
Tr 2pc '25	96.96	3.15	3.28	1.61	-0.63	425.00	105.86	93.15	39.93
Tr 0.125pc '26	91.00	3.13	3.30	0.64	-6.29	396.83	98.77	86.33	35.32
Tr 1.25pc '27	91.35	3.27	2.83	-0.30	-7.37	367.14	104.30	85.65	40.99
Tr 0.875pc '29	85.88	3.17	2.92	-1.86	-10.20	281.93	102.36	78.21	43.62
Tr 4.25pc '32	109.31	3.11	3.32	-3.72	-10.89	214.14	135.62	98.13	40.33
Tr 4.25pc '36	109.17	3.39	2.73	-2.87	-9.36	213.89	145.94	94.91	31.68
Tr 4.5pc '42	114.99	3.46	2.67	-3.08	-8.95	208.93	169.96	93.79	28.35
Tr 3.75pc '52	107.79	3.33	2.15	-1.48	-8.01	217.14	180.27	82.51	25.11
Tr 4pc '60	118.81	3.14	2.61	-0.63	-9.51	237.63	213.01	87.32	25.13

Gilts benchmarks & non-rump undated stocks. Closing mid-price in pounds per £100 nominal of stock.

GILTS: UK FTSE ACTUARIES INDICES

Price Indices Fixed Coupon	Nov 25	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	81.78	-0.19	2351.80	0.91	-4.26	3.25
2 5 - 10 Years	151.92	-0.63	3204.51	3.79	-12.75	3.18
3 10 - 15 Years	164.69	-0.95	3783.86	5.60	-18.83	3.35
4 5 - 15 Years	154.10	-0.72	3344.56	4.29	-14.66	3.25
5 Over 15 Years	239.67	-1.43	4102.04	7.60	-34.26	3.29
7 All stocks	142.51	-0.81	3169.37	4.35	-20.51	3.27

Index Linked	Nov 25	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	325.60	-0.16	0.36	3.13	2753.20	0.62	4.32
2 Over 5 years	588.91	-0.84	3.27	-35.06	4488.85	3.40	-34.77
3 5-15 years	466.35	-0.47	4.21	-13.90	3771.71	4.38	-13.25
4 Over 15 years	685.80	-1.07	2.62	-43.32	5074.87	2.74	-43.14
5 All stocks	551.25	-0.73	2.84	-31.20	4286.44	2.99	-30.83

Yield Indices	Nov 25	Nov 24	Yr ago		Nov 25	Nov 24	Yr ago
5 Yrs	3.13	3.02	0.66	20 Yrs	3.46	3.38	1.16
10 Yrs	3.27	3.18	0.97	45 Yrs	2.99	2.91	0.82
15 Yrs	3.43	3.35	1.13				

Real yield	inflation 0% Nov 25	inflation 0% Dur yrs	inflation 0% Previous	inflation 0% Yr ago	inflation 5% Nov 25	inflation 5% Dur yrs	inflation 5% Previous	inflation 5% Yr ago
Up to 5 yrs	-0.25	2.82	-0.31	-3.54	-0.62	2.84	-0.69	-3.98
Over 5 yrs	0.01	20.44	-0.03	-2.48	-0.02	20.51	-0.07	-2.51
5-15 yrs	-0.16	9.78	-0.21	-2.98	-0.25	9.79	-0.30	-3.08
Over 15 yrs	0.04	27.00	0.00	-2.42	0.03	27.02	-0.01	-2.44
All stocks	0.00	17.71	-0.04	-2.50	-0.04	17.80	-0.08	-2.53

See FTSE website for more details www.ftse.com/products/indices/gilts
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COMMODITIES

www.ft.com/commodities

Energy		Price*	Change
Crude Oil†	Jan	74.22	-2.06
Brent Crude Oil‡		83.46	-0.17
RBOB Gasoline†	Dec	2.31	-0.02
Natural Gas†	Jan	7.05	-0.28
Base Metals (♠ LME 3 Months)			
Aluminium		2365.00	0.00
Aluminium Alloy		1675.00	-905.00
Copper		7963.00	-27.00
Lead		2108.00	-14.00
Nickel		25430.00	-55.00
Tin		22175.00	-190.00
Zinc		2934.00	3.50
Precious Metals (PM London Fix)			
Gold		1751.85	-3.55
Silver (US cents)		2133.50	-22.50
Platinum		979.00	-9.00
Palladium		1812.00	-88.00
Bulk Commodities			
Iron Ore		98.93	3.69
Baltic Dry Index		1347.00	23.00
Richards Bay ICE Futures		201.00	1.00

Agricultural & Cattle Futures		Price*	Change
Corn♦	Dec	663.00	-5.00
Wheat♦	Dec	762.75	-12.75
Soybeans♦	Jan	1429.50	-6.75
Soybeans Meal♦	Dec	409.60	0.80
Cocoa (ICE Liffe)✠	Dec	2117.00	29.00
Cocoa (ICE US)♥	Dec	2389.00	-8.00
Coffee(Robusta)✠	Jan	1850.00	-7.00
Coffee (Arabica)♥	Dec	160.85	-2.70
White Sugar✠		530.40	0.70
Sugar 11♥		19.08	-0.25
Cotton♥	Dec	80.86	-0.48
Orange Juice♥	Jan	206.80	-4.00
Live Cattle♣	Dec	153.10	-0.25
Feeder Cattle♣	May	134.88	-
Lean Hogs♣	Dec	83.75	-0.20

	Nov 25	% Chg Month	% Chg Year
S&P GSCI Spt	604.23	-5.10	11.89
DJ UBS Spot	114.38	2.35	14.26
TR/CC CRB TR	295.22	0.09	16.51
LEBA EUA Carbon	58.91	-1.98	129.94
LEBA UK Power	1048.00	-37.43	-39.60

Sources: † NYMEX, ‡ ECX/ICE, ♦ CBOT, ✠ ICE Liffe, ♥ ICE Futures, ♣ CME, ♠ LME/London Metal Exchange.* Latest prices, $ unless otherwise stated.

BONDS: INDEX-LINKED

	Price Nov 25	Yield Nov 25	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 26	111.53	1.287	1.301	0.57	5.25	74348.36	8
Fr 0.25%' 24	103.00	-1.518	-1.566	0.71	17.92	254619.95	17
Swe 1.00%' 25	125.56	-0.262	-0.342	0.90	35.38	220084.57	6
UK 0.125%' 24	104.15	-2.931	-3.024	0.19	15.24	604854.66	31
UK 2.50%' 24	377.91	-2.070	-2.154	0.34	6.82	604854.66	31
UK 2.00%' 35	255.92	-0.383	-0.434	6.63	9.08	604854.66	31
US 0.625%' 24	97.76	2.641	2.584	-0.39	40.98	1608606.14	47
US 3.625%' 28	109.89	1.695	1.694	0.74	16.78	1608606.14	47

Representative stocks from each major market Source: Merill Lynch Global Bond Indices † Local currencies. ‡ Total market value. In line with market convention, for UK Gilts inflation factor is applied to price, for other markets it is applied to par amount.

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	3.57	1.62	-0.17	Netherlands	2.11	0.17	-1.63
Austria	2.40	0.46	-1.34	New Zealand	4.17	2.23	0.43
Canada	2.90	0.96	-0.84	Norway	3.17	1.22	-0.57
Denmark	2.23	0.29	-1.51	Portugal	2.36	0.41	-1.38
Finland	2.43	0.49	-1.31	Spain	2.65	0.70	-1.09
Germany	1.94	0.00	-1.80	Sweden	-0.26	-2.20	-4.00
Italy	1.45	-0.50	-2.29	Switzerland	0.98	-0.97	-2.76
Japan	0.19	-1.75	-3.55	United States	3.74	1.80	0.00

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

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MANAGED FUNDS SERVICE

abrdn Capital (CI) Limited (JER)
PO Box 189, St Helier, Jersey, JE4 9RU 01534 709130
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
abrdn Capital Offshore Strategy Fund Limited				
Bridge Fund	£ 2.1765	-	-0.0080	1.91
Global Equity Fund	£ 3.2501	-	-0.0161	1.20
Global Fixed Interest Fund	£ 0.7443	-	0.0015	5.66
Income Fund	£ 0.6292	-	-0.0024	3.31
Sterling Fixed Interest Fund	£ 0.6902	-	-0.0014	3.75
UK Equity Fund	£ 1.9732	-	-0.0123	3.82

Algebris Investments (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Algebris Financial Credit I EUR	€ 173.27	-	0.46	-
Algebris Financial Credit R EUR	€ 149.10	-	0.40	-
Algebris Financial Credit Rd EUR	€ 91.23	-	0.24	-
Algebris Financial Income I EUR	€ 178.61	-	0.47	0.00
Algebris Financial Income R EUR	€ 162.56	-	0.42	0.00
Algebris Financial Income Rd EUR	€ 99.63	-	0.25	4.41
Algebris Financial Equity B EUR	€ 161.49	-	0.29	0.00
Algebris Financial Equity R EUR	€ 135.85	-	0.24	0.00
Algebris IG Financial Credit I EUR	€ 95.25	-	0.02	-
Algebris IG Financial Credit R EUR	€ 93.79	-	0.01	-
Algebris Global Credit Opportunities I EUR	€ 124.09	-	0.28	-
Algebris Global Credit Opportunities R EUR	€ 121.15	-	0.27	-
Algebris Global Credit Opportunities Rd EUR	€ 106.50	-	0.24	-
Algebris Core Italy I EUR	€ 141.78	-	-0.26	0.00
Algebris Core Italy R EUR	€ 134.61	-	-0.25	0.00

The Antares European Fund Limited
Other International

Fund	Bid	Offer	D+/-	Yield
AEF Ltd Usd	$ 546.85	-	16.39	0.00
AEF Ltd Eur	€ 504.72	-	14.66	0.00

Artemis Fund Managers Ltd (1200)F (UK)
57 St. James's Street, London SW1A 1LD 0800 092 2051
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Artemis Corporate Bond I Acc	99.16	-	-0.23	3.02
Artemis Positive Future Fund	68.13	-	0.51	0.00
Artemis Target Return Bond I Acc	104.32	-	-0.05	2.84

Ashmore Group
61 Aldwych, London WC2B 4AE. Dealing team: +352 27 62 22 233
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Emerging Markets Equity Fund	$ 112.33	-	-1.31	0.00
Emerging Markets Equity ESG Fund	$ 127.06	-	-1.96	0.00
Emerging Markets Frontier Equity Fund	$ 175.55	-	0.55	0.40
Emerging Markets Blended Debt Fund	$ 51.16	-	0.10	6.88
Emerging Markets Blended Debt ESG Fund	$ 81.89	-	0.09	0.00
Emerging Markets Active Equity Fund	$ 115.03	-	-0.02	0.00
Emerging Markets Corporate Debt Fund	$ 58.23	-	0.17	9.89
Emerging Markets Debt Fund	$ 56.07	-	0.25	8.44
Emerging Markets Local Currency Bond Fund	$ 59.25	-	-0.11	4.44

Atlantas Sicav (LUX)
Regulated

Fund	Bid	Offer	D+/-	Yield
American Dynamic	$ 6382.24	-	-60.62	0.00
American One	$ 6595.34	-	-28.60	0.00
Bond Global	€ 1581.48	1581.48	10.04	0.00
Eurocroissance	€ 1311.28	-	-15.02	0.00
Far East	$ 939.28	-	-38.13	-

Blue Whale Investment Funds ICAV (IRE)
www.bluewhale.co.uk, info@bluewhale.co.uk
FCA Recognised - Ireland UCITS

Fund	Bid	Offer	D+/-	Yield
Blue Whale Growth USD T	$ 8.81	-	-0.04	0.00

Brooks Macdonald International Fund Managers Limited (JER)
5 Anley Street, St Helier, Jersey, JE2 3QE
+44 (0) 1534 700 104 (Int.) +44 (0) 800 735 8000 (UK)

Fund	Bid	Offer	D+/-	Yield
Brooks Macdonald International Investment Funds Limited				
Euro High Income	€ 1.2250	-	-0.0021	2.50
High Income	£ 0.6624	-	-0.0001	3.77
Sterling Bond	£ 1.2608	-	-0.0001	2.06
Brooks Macdonald International Multi Strategy Fund Limited				
Balanced Strategy A	£ 0.9126	-	-0.0005	0.60
Balanced Strategy	£ 0.9118	-	-0.0006	0.09
Cautious Balanced Strategy A	£ 0.8873	-	-0.0005	1.16
Growth Strategy A	£ 0.9171	-	-0.0010	0.52
High Growth Strategy A	£ 0.9112	-	-0.0012	0.13
Cautious Balanced Strategy	£ 1.2410	-	-0.0007	0.00
Growth Strategy	£ 1.9192	-	-0.0022	0.00
High Growth Strategy	£ 2.6724	-	-0.0036	0.00
US$ Growth Strategy	$ 1.6418	-	-0.0020	0.00

Dealing Daily. Initial Charge Nil for A classes and up to 2% for other classes

CG Asset Management Limited (IRL)
25 Moorgate, London, EC2R 6AY
Dealing: Tel. +353 1434 5098 Fax. +353 1542 2859
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
CG Portfolio Fund Plc				
Absolute Return Cls M Inc	£ 135.73	135.73	-0.03	1.36
Capital Gearing Portfolio GBP P	£ 37407.31	37407.31	-21.58	1.05
Capital Gearing Portfolio GBP V	£ 181.93	181.93	-0.10	1.05
Dollar Fund Cls D Inc	£ 166.49	166.49	-0.40	1.42
Dollar Hedged GBP Inc	£ 93.36	93.36	-0.03	1.71
Real Return Cls A Inc	£ 200.02	200.02	-0.25	1.46

Chartered Asset Management Pte Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
CAM-GTF VCC	$ 276934.95	276934.95	-141.90	-
CAM GTi VCC	$ 780.49	-	-32.39	-
RAIC VCC	$ 1.64	1.64	0.03	2.06

Dodge & Cox Worldwide Funds (IRL)
48-49 Pall Mall, London SW1Y 5JG.
www.dodgeandcox.worldwide.com 020 3713 7664
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Dodge & Cox Worldwide Funds plc - Global Bond Fund				
EUR Accumulating Class	€ 15.83	-	0.04	0.00
EUR Accumulating Class (H)	€ 10.26	-	0.02	-
EUR Distributing Class	€ 11.60	-	0.02	0.96
EUR Distributing Class (H)	€ 7.46	-	0.02	-
GBP Distributing Class	£ 12.23	-	0.00	0.87
GBP Distributing Class (H)	£ 7.97	-	0.01	1.16
USD Accumulating Class	$ 11.88	-	0.03	0.00
Dodge & Cox Worldwide Funds plc-Global Stock Fund				
USD Accumulating Share Class	$ 28.50	-	0.06	-
GBP Accumulating Share Class	£ 38.77	-	-0.01	0.00
GBP Distributing Share class	£ 26.17	-	0.00	-
EUR Accumulating Share Class	€ 41.15	-	0.09	-
GBP Distributing Class (H)	£ 13.24	-	0.02	0.57
Dodge & Cox Worldwide Funds plc-U.S. Stock Fund				
USD Accumulating Share Class	$ 38.74	-	0.07	0.00
GBP Accumulating Share Class	£ 49.84	-	-0.02	-
GBP Distributing Share Class	£ 29.92	-	-0.01	0.16
EUR Accumulating Share Class	€ 48.29	-	0.09	0.00
GBP Distributing Class (H)	£ 15.39	-	0.02	0.20

Dragon Capital
www.dragoncapital.com
Fund information:info@dragoncapital.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Vietnam Equity (UCITS) Fund A USD	$ 22.55	-	0.84	0.00

EdenTree Investment Management Ltd (UK)
PO Box 3733, Swindon, SN4 4BG, 0800 358 3010
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
EdenTree Short Dated Bond Cls B	93.07	-	-0.09	-

Euronova Asset Management UK LLP (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Smaller Cos Cls One Shares	€ 51.85	-	-1.39	0.00
Smaller Cos Cls Two Shares	€ 33.10	-	-0.89	0.00
Smaller Cos Cls Three Shares	€ 16.52	-	-0.44	0.00
Smaller Cos Cls Four Shares	€ 21.77	-	-0.59	0.00

Fidelity Investments International
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Emerging Mkts NAV	£ 7.21	-	-0.16	2.07

FIL Investment Services (UK) Limited (1200)F (UK)
Beech Gate, Millfield Lane, Lower Kingswood, Tadworth, KT20 6RP
Callfree: Private Clients 0800 414161
Broker Dealings: 0800 414 181

Fund	Bid	Offer	D+/-	Yield
OEIC Funds				
Index Sterling Corporate Bond Fund P-ACC-GBP	£ 0.83	-	-0.01	2.03
Sustainable Multi Asset Balanced Fund W-ACC-GBP	£ 0.92	-	-0.01	0.15
American Fund W-ACC-GBP	£ 51.50	-	-0.38	0.00
Cash Fund W-ACC-GBP	£ 1.03	-	0.00	0.00
Emerg Europe, Middle East and Africa Fund W-ACC-GBP	£ 1.65	-	-0.01	4.94
Sustainable Global Equity Fund W-ACC-GBP	£ 32.63	-	-0.16	0.00
Global High Yield Fund W-ACC-GBP	£ 13.51	-	0.02	5.84
Japan Fund W-ACC-GBP	£ 5.58	-	0.02	-
Japan Smaller Companies Fund W-ACC-GBP	£ 3.56	-	0.03	0.64
Select 50 Balanced Fund PI-ACC-GBP	£ 1.13	-	0.00	1.04
Special Situations Fund W-ACC-GBP	£ 42.47	-	-0.02	2.08
Short Dated Corporate Bond Fund W-ACC-GBP	£ 10.44	-	0.01	-
Sustainable Water & Waste W-ACC-GBP	£ 1.13	-	0.00	0.15
Sustainable Water & Waste W-INC-GBP	£ 1.12	-	0.00	0.15
UK Select Fund W-ACC-GBP	£ 3.66	-	-0.02	2.13
Global Enhanced Income W-ACC-GBP	£ 2.30	-	0.00	4.29
Index UK Gilt Fund P-ACC-GBP	£ 0.77	-	-0.01	0.59
Sustainable Multi Asset Conservative Fund W-ACC-GBP	£ 0.89	-	-0.01	0.16
Sustainable Multi Asset Growth Fund W-ACC-GBP	£ 0.94	-	-0.01	0.08

Findlay Park Funds Plc (IRL)
30 Herbert Street, Dublin 2, Ireland Tel: 020 7968 4900
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
American EUR Unhedged Class	€ 155.58	-	-0.28	0.00
American Fund USD Class	$ 161.90	-	0.21	0.00
American Fund GBP Hedged	£ 79.58	-	0.10	0.00
American Fund GBP Unhedged	£ 133.85	-	-0.15	0.00

Foord Asset Management
Website: www.foord.com - Email: info@foord.com

Fund	Bid	Offer	D+/-	Yield
FCA Recognised - Luxembourg UCITS				
Foord International Fund | R	$ 48.45	-	-0.23	0.00
Foord Global Equity Fund (Lux) | R	$ 15.44	-	-0.14	0.00
Regulated				
Foord Global Equity Fund (Sing) | B	$ 18.41	-	-0.16	0.00
Foord International Trust (Gsy)	$ 47.22	-	-0.22	0.00

GAM
funds@gam.com, www.funds.gam.com
Regulated

Fund	Bid	Offer	D+/-	Yield
LAPIS GBL TOP 50 DIV.YLD-Na-D	£ 127.69	-	0.07	-
LAPIS GBL F OWD 50 DIV.YLD-Na-D	£ 99.80	-	0.19	-

Guinness Global Investors

Fund	Bid	Offer	D+/-	Yield
Guinness Global Equity Income Y GBP Dist	£ 18.98	-	0.09	2.34
Guinness Global Innovators Y GBP Acc	£ 24.98	-	0.01	0.00
Guinness Sustainable Global Equity Y GBP Acc	£ 11.26	-	0.03	0.00

HPB Assurance Ltd
Anglo Intl House, Bank Hill, Douglas, Isle of Man, IM1 4LN 01638 563490
International Insurances

Fund	Bid	Offer	D+/-	Yield
Holiday Property Bond Ser 1	£ 0.48	-	0.00	0.00
Holiday Property Bond Ser 2	£ 0.63	-	0.00	0.00

Janus Henderson Investors (UK)
PO Box 9023, Chelmsford, CM99 2WB Enquiries: 0800 832 832
www.janushenderson.com
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Janus Henderson Instl UK Idx Opps A Acc	£ 1.11	-	-0.01	3.13

M & G Securities (1200)F (UK)
PO Box 9038, Chelmsford, CM99 2XF
www.mandg.co.uk/charities Enq./Dealing: 0800 917 4472
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
M&G Charibond Charities Fixed Interest Fund (Charibond) Inc	£ 1.10	-	-0.01	2.03
M&G Charibond Charities Fixed Interest Fund (Charibond) Acc	£ 39.31	-	-0.08	1.62
M&G Charity Multi Asset Fund Inc	£ 0.88	-	-0.01	3.89
M&G Charity Multi Asset Fund Acc	£ 105.74	-	-0.45	3.74

MMIP Investment Management Limited (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Multi-Manager Investment Programmes PCC Limited				
UK Equity Fd Cl A Series 01	£ 2810.68	2842.19	142.84	0.00
Diversified Absolute Rtn Fd USD Cl AF2	$ 1588.98	-	5.05	-
Diversified Absolute Return Stlg Cell AF2	£ 1474.75	-	6.33	-
Global Equity Fund A Lead Series	£ 1721.66	1727.57	67.75	0.00

Marwyn Asset Management Limited (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Marwyn Value Investors	£ 329.72	-	-6.14	0.00

Milltrust International Managed Investments ICAV (IRL)
mimi@milltrust.com, +44(0)20 8123 8316 www.milltrust.com
Regulated

Fund	Bid	Offer	D+/-	Yield
British Innovation Fund	£ 121.92	-	2.89	0.00
MAI - Buy & Lease (Australia)	A$ 103.45	-	0.50	0.00
MAI - Buy & Lease (New Zealand)	NZ$ 91.20	-	-6.06	0.00
Milltrust Global Emerging Markets Fund - Class A	$ 89.54	-	0.54	0.00

Milltrust International Managed Investments SPC
em@milltrust.com, +44(0)20 8123 8316, www.milltrust.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Milltrust Alaska Brazil SP A	$ 75.40	-	-0.80	0.00
Milltrust Laurium Africa SP A	$ 103.69	-	-0.24	0.00
Milltrust Marcellus India Fund	$ 129.43	-	1.36	0.00
Milltrust Singular ASEAN SP Founders	$ 129.34	-	-0.44	0.00
Milltrust SPARX Korea Equity SP A	$ 102.44	-	-1.56	0.00
Milltrust Xingtai China SP A	$ 91.42	-	-0.74	0.00
The Climate Impact Asia Fund SP (Class A)	$ 75.47	-	1.20	0.00
The Climate Impact Asia Fund (Class B)	$ 74.87	-	1.18	0.00

Mirabaud Asset Management (LUX)
www.mirabaud.com, marketing@mirabaud-am.com
Conviction based investment vehicles details available here www.mirabaud-am.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Mir. - Glb Strat. Bd I USD	$ 114.92	-	0.40	-
Mir. - DiscEur D Cap GBP	£ 165.74	-	1.55	0.00
Mirabaud - UK Equity High Alpha	£ 138.79	-	-0.08	0.00

Oasis Crescent Global Investment Funds (UK) ICVC (UK)
Regulated

Fund	Bid	Offer	D+/-	Yield
Oasis Crescent Global Equity Fund USD A (Dist)	$ 34.02	-	-0.74	0.25
Oasis Crescent Global Income Fund USD A (Dist)	$ 9.99	-	0.03	2.74
Oasis Crescent Global Low Equity Fund USD D (Dist)	$ 12.18	-	-0.04	0.62
Oasis Crescent Global Medium Equity Fund USD A (Dist)	$ 13.52	-	-0.05	0.15
Oasis Crescent Global Property Equity Fund USD A (Dist)	$ 7.81	-	0.01	0.98
Oasis Crescent Global Short Term Income Fund USD A (Dist)	$ 0.94	-	0.00	1.87
Oasis Crescent Variable Fund GBP A (Dist)	£ 9.66	-	-0.04	0.18

Omnia Fund Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Estimated NAV	$ 946.10	-	-9.48	0.00

Orbis Investments (U.K.) Limited (GBR)
28 Dorset Square, London, NW1 6QG
www.orbis.com 0800 358 2030
Regulated

Fund	Bid	Offer	D+/-	Yield
Orbis OEIC Global Cautious Standard	£ 11.75	-	-0.01	0.00
Orbis OEIC Global Balanced Standard	£ 19.11	-	0.00	-
Orbis OEIC Global Equity Standard	£ 21.61	-	0.04	1.99
Orbis OEIC UK Equity Standard	£ 11.24	-	0.00	3.45

Platinum Capital Management Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Platinum All Star Fund - A	$ 141.55	-	-	-
Platinum Global Growth UCITS Fund	$ 8.26	-	0.01	0.00
Platinum Essential Resources UCITS Fund SICAV USD Class E	$ 11.90	-	0.03	0.00
Platinum Global Dividend UCITS Fund	$ 48.75	-	0.02	0.00

Polar Capital Funds Plc (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Automation & Artificial Intelligence CL I USD Acc	$ 14.46	14.46	0.01	0.00
Asian Starts I USD Acc $	$ 13.68	-	-0.11	0.00
Biotechnology I USD	$ 37.46	37.46	0.20	0.00
China Stars I USD Acc $	$ 10.01	10.01	-0.11	0.00
Emerging Market Stars I USD Acc	$ 10.88	-	-0.09	0.00
European Ex UK Inc EUR Acc	€ 14.15	14.15	0.03	-
Financial Opps I USD	$ 13.88	-	0.01	2.74
Global Convertible I USD	$ 13.53	13.53	0.01	0.00
Global Insurance I GBP	£ 10.15	-	0.07	0.00
Global Technology I USD	$ 62.24	-	-0.29	0.00
Healthcare Blue Chip Fund I USD Acc	$ 18.25	18.25	0.10	0.00
Healthcare Dis I Acc USD $	$ 11.82	-	0.06	-
Healthcare Opps I USD	$ 64.02	-	0.41	-
Income Opportunities B2 I GBP Acc	£ 2.92	2.92	0.02	0.00
Japan Value I JPY	¥ 143.33	143.33	-1.10	0.00
North American I USD	$ 32.94	32.94	0.07	0.00
Smart Energy I USD Acc $	$ 9.26	9.26	0.03	0.00
Smart Mobility I USD Acc $	$ 8.64	8.64	0.00	0.00
UK Val Opp I GBP Acc	£ 11.95	11.95	-0.09	0.00

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Monument Growth 22/11/2022	£ 545.21	550.55	1.04	1.11

Prusik Investment Management LLP (IRL)
Enquiries - 0207 493 1331
Regulated

Fund	Bid	Offer	D+/-	Yield
Prusik Asian Equity Income B Dist	$ 171.32	-	-1.77	5.08
Prusik Asia Emerging Opportunities Fund A Acc	$ 181.78	-	1.50	0.00
Prusik Asia Fund U Dist.	£ 205.16	-	-0.47	0.00
Prusik Asia Sustainable Growth Fund A Acc	$ 85.68	-	-0.56	-

Purisima Investment Fds (CI) Ltd (JER)
Regulated

Fund	Bid	Offer	D+/-	Yield
PCG B ✠	279.45	-	0.52	0.00
PCG C ✠	271.87	-	0.51	0.00

Ram Active Investments SA
www.ram-ai.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
RAM Systematic Emerg Markets Eq	$ 205.70	205.70	-1.19	-
RAM Systematic European Eq	€ 514.85	514.85	0.51	-
RAM Systematic Funds Global Sustainable Income Eq	$ 150.01	150.01	0.53	0.00
RAM Systematic Global Eq Sustainable Alpha	$ 108.58	108.58	-0.02	-
RAM Systematic Long/Short European Eq	€ 151.35	151.35	0.65	-
RAM Systematic US Sustainable Eq	$ 346.35	346.35	1.31	-
RAM Tactical Global Bond Total Return	€ 138.12	138.12	-0.06	-
RAM Tactical II Asia Bond Total Return	$ 141.09	141.09	0.56	-

Ruffer LLP (1000)F (UK)
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 601 9610
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Authorised Corporate Director - Link Fund Solutions				
LF Ruffer Diversified Rtrn C Acc	105.87	-	-0.17	0.85
LF Ruffer Diversified Rtrn C Inc	104.99	-	-0.16	0.94
LF Ruffer European C Acc	763.13	-	0.66	0.82
LF Ruffer European C Inc	136.90	-	0.12	0.91
LF Ruffer Equity & General C Acc	562.52	-	-0.52	0.77
LF Ruffer Equity & General C Inc	508.21	-	-0.47	0.78
LF Ruffer Gold C Acc	222.42	-	-2.03	0.00
LF Ruffer Gold C Inc	134.62	-	-1.23	0.00
LF Ruffer Japanese C Inc	159.85	-	-2.56	0.26
LF Ruffer Japanese C Acc	344.38	-	-5.51	0.24
LF Ruffer Total Return C Acc	570.54	-	0.12	2.41
LF Ruffer Total Return C Inc	355.81	-	0.07	2.46

Rubrics Global UCITS Funds Plc (IRL)
www.rubricsam.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Rubrics Emerging Markets Fixed Income UCITS Fund	$ 131.88	-	-0.17	-
Rubrics Global Credit UCITS Fund	$ 16.52	-	0.00	0.00
Rubrics Global Fixed Income UCITS Fund	$ 169.22	-	-0.03	0.00

Slater Investments Ltd (UK)
www.slaterinvestments.com; Tel: 0207 220 9460
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Slater Growth A Acc	644.38	644.38	-0.89	0.00
Slater Income A Inc	140.88	140.88	0.21	5.22
Slater Recovery A Acc	333.85	333.85	-0.22	0.00
Slater Artorius	288.29	288.29	-6.73	0.32

Stonehage Fleming Investment Management Ltd (IRL)
www.stonehagefleming.com/gbi
enquiries@stonehagefleming.com
Regulated

Fund	Bid	Offer	D+/-	Yield
SF Global Best Ideas Eq B USD ACC	$ 219.46	-	-0.18	-
SF Global Best Ideas Eq D GBP INC	£ 275.31	-	0.83	-

Superfund Asset Management GmbH
www.superfund.com, +43 (1) 247 00
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Other International Funds				
Superfund Green Gold	$ 1197.17	-	-1.07	0.00
Superfund Green Silver	$ 1029.64	-	-2.82	0.00
Regulated				
Superfund Green US$	$ 963.96	-	-5.48	0.00

Toscafund Asset Management LLP (UK)
www.toscafund.com
Authorised Funds

Fund	Bid	Offer	D+/-	Yield
Aptus Global Financials B Acc	£ 4.76	-	-0.02	4.36
Aptus Global Financials B Inc	£ 3.08	-	-0.01	4.51

Toscafund Asset Management LLP
www.toscafund.com

Fund	Bid	Offer	D+/-	Yield
Tosca A USD	$ 406.01	-	8.84	0.00
Tosca Mid Cap GBP	£ 170.45	-	1.07	0.00
Tosca Opportunity B USD	$ 261.12	-	2.32	0.00
Pegasus Fund Ltd A-1 GBP	£ 40.62	-	0.28	0.00

Troy Asset Mgt (1200) (UK)
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 608 0950
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Authorised Corporate Director - Link Fund Solutions				
Trojan Investment Funds				
Trojan Ethical O Acc	125.01	-	0.19	0.00
Trojan Ethical Global Inc O Acc	101.99	-	-0.02	-
Trojan Ethical Global Inc O Inc	99.46	-	-0.02	-
Trojan Ethical O Inc	124.77	-	0.19	0.00

Zadig Gestion (Memnon Fund) (LUX)
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Memnon European Fund - Class U2 GBP	£ 240.98	-	1.53	0.00

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Guide to pricing of Authorised Investment Funds: (compiled with the assistance of the IMA. The Investment Association, Camomile Court 23 Camomile Street, London EC3A 7LL. Tel: +44 (0)20 7831 0898.)

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Buying price: Also called offer price. The price at which units in a unit trust are bought by investors. Includes manager's initial charge.

Single price: Based on a mid-market valuation of the underlying investments. The buying and selling price for shares of an OEIC and units of a single priced unit trust are the same.

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Unexpected collaboration

Video works from Pamela Kramlich's collection are on show alongside Old Masters in Utrecht. She talks to Georgina Adam

Prometheus shrieking with pain, depicted by a 17th-century Dutch artist, displayed alongside a video by Bill Viola showing a figure consumed by fire. A fetching "Procuress"by Gerard van Honthorst contrasted with a video by Marina Abramović. These are just two absorbing pairings in an exhibition at the Centraal Museum in Utrecht.

Double Act brings together Old Master paintings from the museum alongside time-based works from the collection of San Francisco-based Pamela and Richard Kramlich. Theirs is one of the best and most comprehensive video art collections in the world.

"It all started in 1987," says Pamela Kramlich, when we meet at a London hotel shortly after the inauguration of the show. Kramlich, who had studied art history at Berkeley in the 1960s, was a member of a collectors' forum at San Francisco Museum of Modern Art and travelled to Germany with curator John Caldwell to attend Documenta, the five-yearly contemporary art exhibition.

"I was young, and because there were a number of good collectors in other fields, I wanted to do something that no one else was doing," she says. "John suggested I look at Fischl & Weiss's video 'The Way Things Go' and I was captivated." On returning home she bought the video over the phone from the Sonnabend Gallery for $350. That wacky video — showing objects setting off a series of accidents — was just the start of what Kramlich calls the "funny journey" that she and her husband then undertook.

Certainly, the fact that her husband Richard was an investor in technology in Silicon Valley was a spur: "We were interested in looking at new things and new ways of doing things. You want to change your perspective."

Initially, the couple worked with art adviser Thea Westreich Wagner to put the collection together. "There weren't many people buying [video art] in those days," she recalls. "At first, I was not aware of issues surrounding collecting media-based art, for example the number of editions, the technology."

Main: a Marina Abramović video facing oil Old Masters. Below: shrieking Prometheus paired with Bill Viola's man in flames — Gert Jan van Rooij; Centraal Museum Utrecht/Ernst Moritz; Bill Viola Studio

Today, the collection numbers more than 200 film, video and media installations, and in the late 1990s the Kramlichs began what turned out to be an expensive, 18-year project to build a place to display and live with their art. The house, designed by Herzog & de Meuron, is in Napa Valley. The Kramlichs' living quarters are on the upper floor, a glass pavilion, with most of the gallery space underground.

"The house has been a thrilling journey, it is like a sculpture in itself: a glass box on top of a hill," says Kramlich. It is not open to the public, but they welcome friends, committee and board members and some who ask to visit.

The videos she and her husband have collected include politically engaged works such as Richard Mosse's "The Enclave" (2012-13), depicting a rebellion in the Democratic Republic of Congo, as well as Louise and Jane Wilson's "Stasi City" (1997), shot in the former offices of the East German secret police. The list is dizzying, ranging from Jennifer Allora and Guillermo Calzadilla to Yang Fudong. Not all is video: they have two-dimensional works and sculpture, some incorporating video, for instance by Nam June Paik.

I ask what she is looking for when she considers acquiring a time-based work. "I have to be bothered by it, by the idea and the way it is expressed," she says. "In our collection we have a lot of things that really speak to the world we live in, things that have happened historically. We have works by Shirin Neshat, very relevant to the present upheavals in Iran. We have a work by Pierre Huyghe, about the tsunami in Japan . . . I look for something that approaches ideas that can't be said in any other way."

Like any committed collector, she still thinks about works she failed to acquire. "Early on, we were offered a William Kentridge work. I decided to step away, because I felt . . . someone who appreciated drawing would be better to buy it." Another was Christian Marclay's "The Clock", the 24-hour work made of film segments showing the time. "We did try to get a copy but didn't succeed. But it really is an institutional piece anyway."

> 'It all started in 1987 . . . I was young, and I wanted to do something that no one else was doing'

Is she still buying? She laughs. "I have a wishlist a mile long but money doesn't grow on trees, and like everyone you have to make choices. But those very constraints make you pick the strongest works."

The Kramlichs — Ryan Young

I ask Kramlich how the project with the Centraal Museum came about. "When I studied art history at Berkeley University back in the 1960s the emphasis was on more modern works — for example German Expressionists and Fauvists. But I feel a profound connection with historical masterworks, and when they are in dialogue with videos from my collection, they become even more meaningful — and vice versa."

She credits this particular initiative to Bart Rutten, artistic director of the museum: "Bart was very interested in video — for example, those by Bill Viola and Steve McQueen." Early conversations finally led to the show being realised. "Bart made the selections: eight from our collection, with two that are not moving images." As for the 17th-century painters on show, they include Dirck van Baburen, Roeland Saverij, Jan van Scorel and Gerard van Honthorst.

Kramlich sits on various boards and committees, including at the San Francisco Museum of Modern Art. She and Richard have sponsored works for museums and established the New Art Trust, which focuses on conservation and education about video works.

Like many other collectors, her concern is what will happen to the group in the future. "I want it to stay together," she says, "and I want it to be displayed. We are talking to various institutions. We are still trying to figure out the best use of the collection and how we want the works to be seen."

"I was told a long time ago you are not really a collector until you have things in storage," Kramlich says, laughing. Indeed much of their collection is stored, so the Utrecht show offers a rare chance to see a few of their holdings without going all the way to California.

To January 15, centraalmuseum.nl

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Flamenco virtuoso enchants

DANCE

La Consagración de la Primavera
Sadler's Wells, London
★★★★★

Louise Levene

Born into a flamenco family, Israel Galván was soon master of the arts of the traditional *tablao* — feet that could pound and purr; a lithe torso that swoops into *quebradas* like the curl of a whip — but the Seville-born virtuoso yearned for new worlds to conquer and founded his own company in 1998. Dubbed "the Paganini of Flamenco" on these pages for his dazzling command of space and rhythm, he is also its Picasso, forever deconstructing the classical form in surprising and exciting ways.

His 2019 solo *La Consagraciòn de la Primavera* uses the dazzling two-piano reduction of Stravinsky's *Rite of Spring* supplemented by a Scarlatti sonata (K87), Frederic Rzewski's 1980 piano duo *Winnsboro Cotton Mill Blues* and a new composition by musical director Sylvie Courvoisier: a bold but entirely successful sound salad. Devised by the composer to accompany rehearsals of the ballet in 1913, the percussive fury of the four-handed transcription gave the piece a life of its own on the concert platform. It was superbly played on stage on Friday by Daria van den Bercken and Gerard Bouwhuis. Their demonic assaults on their Steinways were a fine foil for Galván's soliloquies.

Dancer Israel Galván — Jean-Louis Duzert

The interlocking grand pianos dominate the left-hand side of the unadorned stage and the rest of the space is littered with the boards, plinths and platforms required for the dance. Galván wears his trademark long black shirt teamed with natty white ankle boots and a single black pop sock — a far cry from the traditional *bailaor's* elegant costume. He begins by whetting our appetite: tapping out an intermittent *taconeo* on a tiny platform. There is a languid, strolling sway to his arms and upper body but his feet are operating in another gear, firing off random volleys of sound. At times he surrenders to the rhythm, his stamping foot mirroring the crash-bang-wallop of the pianos, but he can slip without warning into a quarrel with the music, compounding Stravinsky's fiendish polyrhythms with mad measures of his own.

Each dance sequence takes place on a different surface and the percussive mix is scrambled and complicated by a sprinkling of grit which squeaks and grates beneath his feet, sending up little sandstorms of resin as he works. All the while his fingers snap, crackle and pop around his head.

Only a seasoned flamenco *divo* could produce such effects but Galván's performance was wittily studded with cheeky quotes from other traditions that are glimpsed like the skewed features in a Cubist portrait: the "let's dance" mime from classical ballet; the paddle palms of Nijinsky's *Faune*; the upthrust arm of Travolta and a preening, Jagger-ish strut as he pouts his way across the stage.

Dance minutes can be weirdly elastic. When Brazil's Bruno Beltrao presented his *New Creation* at Sadler's Wells three nights earlier an hour had seemed like a lifetime. Galvan's 70-minute *tour de force* seemed to fly by. I never wanted it to end.

On tour, israelgalvancompany.com

OPERA

It's a Wonderful Life
Coliseum, London
★★★★☆

Richard Fairman

Will a guardian angel come to the rescue? Three weeks ago English National Opera heard the news that it is to lose its annual grant. Artistic director Annilese Miskimmon came out in front of the curtain before the opening night of Jake Heggie's *It's a Wonderful Life* to rally the audience. She did not call for divine intervention, though at this stage it is hard to see what other hope ENO might have. What an irony that the company has scheduled an enchanting Christmas show all about a saviour from on high.

In the much-loved Yuletide story, an angel finds George Bailey on the point of suicide and throws him a lifeline. The 1946 film starring James Stewart is a Christmas favourite and ENO will be having similar hopes for this opera.

In one of its various soul-searching reinventions of recent years, ENO decided to focus on operas written in English. Many of these have been contemporary operas by American composers so it is strange that it has not hit upon Heggie before. His *It's a Wonderful Life*, based on Philip Van Doren Stern's original short story, dates from 2016 and has been a success in the US.

Whether the opera can rescue ENO from its own crisis is open to question. It is "family-friendly", sentimental and not too long. What it lacks is narrative drive, especially in the first half, which is slow to get a grip. Even George's attempted suicide goes for little.

The opera ups the Christmas tinsel quota. The film's elderly male angel Clarence has become Clara (Danielle de Niese) and she is accompanied by a quartet of youthful angels, who sing out from a star-spangled sky. The darker elements of the story are played down, apart from Michael Mayes as George's nemesis Henry F Potter.

Heggie does a good line in Christmas magic and delivers a fine scene of music in the duet between George and his wife Mary. Why he should allow the opera's climax to fall flat with an overlong stretch of dialogue is a mystery. Frederick Ballentine is only half-audible there, which is a shame as his George is bright elsewhere. Nicole Paiement conducts Heggie's sugar-dusted orchestra. Aletta Collins is the adroit director. If only the guardian angel can conjure a better future for ENO as well.

Danielle de Niese as Clara — Lloyd Winters

To December 10, eno.org

FT BIG READ. ENERGY

As western countries prepare to impose a price cap on Russian crude, energy markets are again facing intense pressure. Many of the norms that have underpinned their functioning have been thrown out.
By Derek Brower and David Sheppard

The unravelling global oil market

Europe over the next week starts to block Russian seaborne crude from the continent in response to Vladimir Putin's invasion of Ukraine; a Russia-flagged oil tanker passes through the Bosphorus Strait near Istanbul, bottom right. Russia sits alongside Saudi Arabia at the top of the Opec+ cartel

FT montage; EPA/EFE/Reuters/Dreamstime; Diego Cupolo/NurPhoto/Getty Images

As an epic oil crash threatened more havoc on a pandemic-stricken global economy in April 2020, the US, Saudi Arabia, Russia and other G20 countries met to thrash out a solution. The co-operation helped end an Opec+ price war and restored stability to the market. Prices recovered.

Two-and-a-half years later, and nine months into Russia's war in Ukraine, such collaboration on energy between global powers seems a distant memory.

Moscow has weaponised its natural gas supplies to Europe for months and is now actively trying to disable Ukraine's electricity network. Consumer countries have become competitors as they race to secure scarce energy supplies. Fractures are visible in the decades-old Saudi-US oil relationship. Even in clean energy, leaders such as Joe Biden talk of a new battle to dominate supply chains.

The potential unravelling of the old order in the global oil market will reach a defining moment over the next week when Europe starts to block Russian seaborne crude from the continent — one of the strongest responses yet to Vladimir Putin's invasion of Ukraine.

The new sanctions will also stop European companies from insuring vessels carrying Russian oil to third countries — unless those countries accept a price for the oil dictated by western powers. In other words, western countries will attempt to impose a cap on the price of oil sold by Russia.

No one can say how disruptive these measures will be. Sanctions imposed on Russia since Putin ordered troops across Ukraine's border on February 24 have barely dented the country's oil exports or the Kremlin's oil income.

But the very principle that Moscow's geopolitical foes will set the price at which Russia sells its crude is a humiliation for a petrostate that produces more than 10 per cent of the world's oil and sits alongside Saudi Arabia at the top of the Opec+ cartel. A price-setter would become the ultimate price-taker.

Alexander Novak, Russia's deputy prime minister, will have a chance to discuss Moscow's response when he sits down with Saudi energy minister Prince Abdulaziz bin Salman, at another Opec+ meeting in Vienna on Sunday, a day before the European embargo and price cap plan come into effect.

The coming days mark a moment of deep peril for the oil market — and a global economy that still depends heavily on the commodity. Established geopolitical norms have been eroded in the past year, they say, and supply chains that have existed for decades are being upended.

Russia's willingness to torch its gas customer base in Europe and Saudi Arabia's decision last month to slash oil supply — despite fierce opposition from the White House, who accused its Middle Eastern ally of aligning with Moscow — were just two examples. But consumer countries have acted too, from the US's willingness to drain its emergency oil stockpile to drive down petrol prices, to western attempts to purge Russian energy from their economies.

"These are tectonic shifts. Global markets were built on these trunk lines, of [natural gas] supply going between Russia and Europe, and both oil and gas between the Middle East and Asia," says Roger Diwan, a veteran oil analyst at S&P Global Commodity Insights in Washington. "We don't know how this market is going to function after a certain date. The adjustment will be dramatic . . . it's going to be confrontational and it's going to be volatile."

The politics of the cap

If a historic breach in the global energy order is indeed imminent, there have been few apparent signs of this in the crude market. Brent, the international benchmark, has fallen from $120 a barrel in June to around $84 yesterday as traders zero in on signs of recession.

China's commitment to a "zero-Covid" policy has also crimped demand and provided a release valve of sorts for wider pressures in the market. But clear strains in energy markets remain. Crude prices are higher than at almost any point between 2015 and 2021, while diesel — which Russia exports a lot of — is still extremely elevated.

European natural gas prices may have fallen from peaks close to $500 a barrel equivalent this summer, after Russia moved to almost completely sever supplies. But gas is still trading at about five times the historical norm, wreaking havoc on economies and stoking inflation globally. If China were to ease Covid restrictions next year, its demand for oil and imported liquefied natural gas, which Europe is now heavily reliant on, could soar. "We're clearly still in a very precarious market," says Doug King, chief executive of RCMA Capital, which runs the Merchant Commodity Fund.

"The relationships between the great powers of the oil industry has become very fragmented. Everyone in the industry is feeling a bit battered as oil has been hit from all angles this year."

The White House has worked for months to hold back prices, releasing unprecedented volumes of oil from its own emergency stockpile, while maintaining constant — if so far fruitless — pressure on Saudi Arabia and other producers to keep increasing supply.

The price cap idea, first promoted by the US Treasury department, is the most important and controversial initiative. For the Biden administration, it is a method to curb the Kremlin's revenue while preserving the flow of Russian oil to the market in order to keep more oil price inflation at bay. The plan is actually partly designed to offset much tougher restrictions put in place under EU sanctions on Russia.

Given that the EU and UK dominate the insurance market for oil tankers, the US feared the European sanctions would lead to a collapse of Russian supply as vessels avoided its cargo. Under the price cap plan, vessels would be allowed to access European and UK insurance provided the Russian oil they carry was bought at the price set in western capitals.

The G7 endorsed the Treasury's plan and the EU incorporated it into a new set of sanctions announced in October after Russia illegally annexed more Ukrainian territory. But these sanctions included yet another onerous clause, widening the ban on shipping insurance to any vessel that had ever carried "uncapped" Russian oil. The US lobbied the EU to water down this provision too, say people familiar with the effort.

"Extending the insurance and services ban to all oil tankers — both EU and non-EU — carrying uncapped Russian oil dismayed US officials, as it would have caused a much bigger supply disruption," says Bob McNally, a former adviser to US President George W Bush and head of Rapidan Energy Group. People familiar with the discussions now expect the EU to impose a limit on the duration of any ban.

"Walking the Europeans back from an indefinite vessel ban chewed up a lot of time but was worth it from Washington's perspective, because it threatened to make a bad problem much worse," says McNally.

The actual price of the cap is still a matter of debate. Some European countries want a truly punitive price near $20 a barrel, while others call for a range of about $60 or $65, say people familiar with the discussions. The latter price is similar to what Russia is already receiving for its oil.

"With the current pricing being discussed, this seems to be much more of an inflation reduction effort than a Russian revenue reduction one," says Helima Croft, head of global commodity strategy at RBC Capital Markets.

Could prices rise?

How will the market react to the attempts by politicians to rig supply and price? While there have been few signs of a price spike, some analysts believe the market has become complacent about the potential supply risks stemming from the new EU sanctions and price cap.

"Confusion around the price cap has left the market thinking the EU can buy Russian oil," says Amrita Sen, head of research at consultancy Energy Aspects. "This is entirely mistaken, as the embargo supersedes the price cap." Oil markets could tighten "significantly" in the spring, Sen says.

Some traders point to earlier dire warnings of shortages, which never materialised, such as concerns in 2019 that rules on shipping fuels due to come into force at the start of 2020 would disrupt diesel supplies.

Last spring, the International Energy Agency said sanctions on Russia's oil could see its production plunge by almost a third within months — an alarming prediction that helped push up global prices and contributed to a decision by western nations to release emergency oil stocks.

Wary of believing the latest predictions, traders may be left exposed, argues Martijn Rats, chief commodity strategist at Morgan Stanley. "Russia has managed to export [its oil] pretty much at a constant rate," Rats says. "If it [the embargo] turns out to have teeth, and a lot of oil needs to be rerouted — and some will be lost in the process — then it will be positive for oil prices."

'We don't know how this market is going to function after a certain date. The adjustment will be dramatic'

Others argue that the price cap itself could trigger price increases. The frictions now being built into Russia's oil trade will be immense, with "significant impact" on oil markets next year, say analysts at Bernstein.

About 2.4mn barrels a day of Russian oil will need to find a new home outside EU and G7 countries. India, China and other buyers are expected to take up some of this slack. But they have indicated they will not participate in the price cap scheme, wary of threatening relations with Moscow or being seen to bow to the west.

'The Russians have every intention to make this winter as miserable as possible for the west to make us reconsider our support for Ukraine'

Bernstein estimates Russia could require as many as 100 additional vessels willing to operate without western insurance to keep its oil flowing outside the cap. This is a level they think Russia will struggle to secure even if it can tap the so-called "dark fleet" of tankers used by sanctioned countries such as Iran. As a result, they think supply will fall, pushing prices to $120 a barrel next year, even with a recession.

Vitol, the world's largest independent oil trader, estimates Russian exports could drop by as much as a 1mn b/d, about 20 per cent of the volume it ships by sea.

The impact could be even more dramatic. The Kremlin has already said it will withhold supplies to countries co-operating with the price cap. The US Treasury argues Moscow will still seek to sell its oil to other countries as curtailing production would risk long-term damage to its oilfields.

"We have no reason to expect that they would do that," says a senior Treasury official. "Because ultimately, it's not in their interest. Any action they take to drive up prices would have an impact on their new customers."

Recent history has made others less sanguine. Long-term economic self-interest hardly motivated Moscow as it demolished its reputation as a reliable natural gas supplier to Europe, they argue. "They said they would shut off gas supplies to anyone who doesn't pay in roubles — and that happened," says Rats. "You have to take into account the possibility that [cuts to oil exports] might actually happen."

Others in the industry also point to Russia's capacity to make trouble elsewhere. The 1mn b/d pipeline carrying Kazakh oil through Russia to the Black Sea, already shut by Moscow briefly in recent months for unusual weather reasons, could be a target. Russian proxy forces maintain a presence in Libya's volatile oil sector too.

"I think the Russians likely have every intention to make this winter as miserable as possible for the west to make us reconsider our support for Ukraine," says Croft at RBC.

It leaves much to be discussed as Moscow officials join other Opec+ members in Vienna on Sunday. The meeting will be only two months after their supply cut caused such anger in the US — and just hours before western countries make their own audacious attempt to try to reassert control of prices.

The Opec Gulf states such as Saudi Arabia and the UAE insist they are not siding with Russia and merely attempting to manage a turbulent market that remains the lifeblood of the global economy. But privately they chafe against the price cap believing it could one day be turned against them.

They also point to what they see as the hypocrisy of the west: demanding higher production while also seeking lower prices, which the industry argues has stymied investment and left the market ill-prepared for this crisis and what might come next.

The desire of western countries to accelerate the shift away from oil and gas is also a long-burning fuse under the relationship, posing an existential threat to the power of Opec's leaders even if their citizens are among those most exposed to climate change.

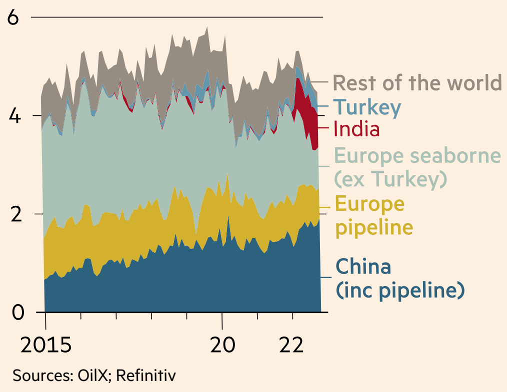
Suhail al-Mazrouei, UAE energy minister, poked at some of the west's apparent contradictions on energy policy after the last Opec+ meeting. He argues their efforts to boost prices should be welcomed in western capitals: "It's about what's good for the market and ensuring we have enough resources for you guys [in the west] in the future."

Sunday's Opec+ meeting could be another milestone as a global energy order based on decades of deepening connections between producers and consumers unravels in the wake of Russia's invasion of Ukraine.

"They openly used their energy, their gas, as a weapon — and it basically told the EU that it could use energy as a weapon against them," says Diwan of S&P. Now comes the undoing of an established order.

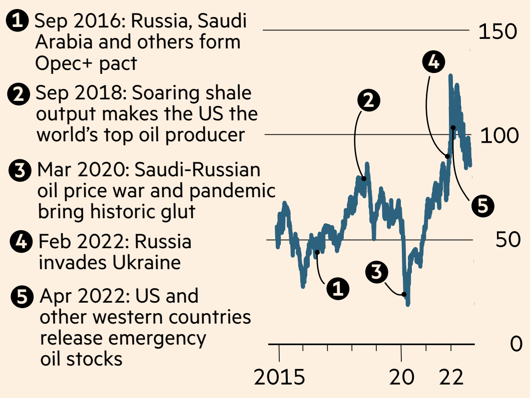
"It's the price cap. It's the sanctions. It's Russia's action on gas markets. It's Opec's reaction to it. It's Saudi Arabia's policy . . . The potential dislocation in the near term is not controlled."

Russia has found other markets for its oil
Million barrels a day



Sources: OilX; Refinitiv

Oil price hit by politics and a pandemic
Brent crude, $ per barrel



The FT View

FINANCIAL TIMES

'Without fear and without favour'

ft.com/opinion

US trade moves sour the transatlantic relationship

Macron's visit to the White House is a moment to air economic concerns

Plenty of pomp and more than a little symbolism will attend Emmanuel Macron's trip to Washington this week for the first state visit to be hosted by Joe Biden as US president. It will be a chance to salute the unexpected unity the US and EU partners have achieved this year over Russia's war on Ukraine. Yet the French leader will arrive with a shopping list of concerns, shared across the EU, over US trade measures including green subsidies and semiconductor export curbs to China. Unless these can be resolved — and a more co-operative economic partnership forged — the solidarity over Ukraine could suffer.

America's passing of its $369bn climate bill, misleadingly called the Inflation Reduction Act, in August was in many ways a welcome moment for European allies. Here was the world's biggest carbon emitter not only embracing the green transition but pledging to subsidise it on a grand scale. But EU officials fret that rules on subsidies for green technologies, including electric vehicles, contain discriminatory requirements on domestic content. These, they say, may unfairly induce EU companies to relocate to the US, and breach world trade rules. Officials are unhappy, too, about the potential spillover impact on EU firms of US export controls aimed at preventing China from acquiring cutting-edge semiconductor technologies.

Seen from across the Atlantic, the US moves smack of protectionist impulses that run counter to US treasury secretary Janet Yellen's call for "friendshoring" of supply chains to trusted partners. They are happening, moreover, just as the EU finds itself at a hefty competitive disadvantage thanks to Vladimir Putin's squeeze on energy supplies. With fuel prices much lower in the US, politicians fear EU and international businesses may shift operations and investments; BASF, the German chemicals group, said last month it would have to downsize "permanently" in Europe, after opening a new plant in China. The French president has accused US energy producers of enjoying "superprofits" as they increased sales to Europe.

The EU has to recognise the political constraints faced by Biden and the Democratic party, from the need to keep US labour unions on board with the green transition to the struggle to get their legislative agenda through Congress with a wafer-thin Senate majority. It should show understanding, too, for the US preoccupation with preventing China from acquiring advanced military technologies — especially after Germany, Italy and others mistakenly allowed themselves to become economically over-reliant on Putin's Russia. But the US, as leader of the western alliance, also has to find solutions that prevent trade disputes from souring the transatlantic relationship.

> Washington's subsidy rules have changed just as the EU finds itself at a hefty competitive disadvantage thanks to Putin's squeeze on energy supplies

Ideally, the US should grant the EU's request and offer it the same preferential terms on electric vehicles as are extended to Canada and Mexico. Given the impracticality of taking the legislation back to Congress, however, the White House should at least attempt to use implementing rules to reduce its discriminatory effects. There is scope, too, to clarify and soften the effect of semiconductor export controls.

There are echoes of the 1950s in America's efforts to assemble a coalition of democracies for a new cold war, where it confronts not just a belligerent Russia but an ever more assertive China. Today, as then, those efforts should involve close co-ordination between allied economies, but trade quarrels constitute a corrosive distraction. Macron's visit to Biden cannot hope to solve these issues. But if it contributes to greater understanding on both sides of just what is at stake, it will have served an important purpose.

Opinion Society

Is it ethical to make — and play — war games?

Ewan White

Stephen Bush

I killed a man last night. I shot him three times. I aimed for the head but hit his shoulder. He staggered. I aimed again. I shot him in the chest. He fell backwards, I shot him again, this time in the stomach.

Of course, I didn't do any of this in real life. I did it in the 2022 third-person shooter *Sniper Elite 5*. (As you may have guessed, I am not very good at it.) Video games are big business. The sector's revenues dwarfed those of the movie industry even before the pandemic. And war games are a big part of that business. The 1962 game *Spacewar!*, devised and created at MIT, and which has a good claim to be the world's first video game, was, as the title suggests, about war, as are many of today's biggest-selling games.

For many years, the UK games industry has complained that its economic, cultural and commercial heft has not brought with it greater respect. But things are changing: video game soundtracks are the topic of devoted programming on both BBC Radio 3 and Classic FM, while the medium is regularly discussed on the nation's flagship cultural programmes. And now video games are the subject of a new exhibition, *War Games*, at the Imperial War Museum in London.

> Many people have an intuitive sense that what you do in a video game says something about you

But as panellists at an IWM event I chaired recently asked: is it ethical to spend one's evenings or weekends pretending to shoot people?

The gaming industry itself has always had an uneasy relationship with these questions, preferring either to invent fictional alien races for players to shoot at or, failing that, to set their games during the second world war, because it's generally understood that any complex ethical concerns about violence can be put to one side if the people you're shooting work for the Third Reich. But as games become more and more realistic, even that becomes more and more uncomfortable.

To the extent that science can ever be said to be "settled", the science on violence in video games is settled: there is no link between playing violent video games and violent behaviour. Yet the belief that there is a link persists, I suspect, because a lot of people have an intuitive moral sense that what you do in a video game says something about you. In "choice-based" video games, where you have the option to help your friends and allies or to behave callously towards them, I pick helpful and compassionate options because, as silly as it sounds, I recoil from unnecessary cruelty even to virtual people.

Video games, like immersive theatre, stand out from other cultural forms. While a novelist or film-maker can hope that they will present a certain perspective to the viewer or reader, the designer of an immersive play or a video game actually has the power to put a gun in your hand and make you pull the trigger. Similarly, the video game developed by the FT gives you a far more immediate sense of what it is like to battle a cyber attack than any article or interview about the experience can.

And in the real and serious world of actual "war games" — the exercises performed by defence strategists to assess vulnerabilities and measure how well teams respond to threats — their effectiveness and utility hinges on the idea that what you do in a game actually tells us something about what kind of person you are in real life. We can draw conclusions about the impact of cyber operations on the risk of nuclear exchange because we believe that how participants react in an organised war game tells us something about how they would react in a real military conflict.

Of course, most video games are not a lot like real military conflict. Kenny Duffy, a Falklands war veteran, once described his experiences as "90 per cent boredom and 10 per cent sheer terror", which is hardly an experience that most game designers are aiming for. That said, a 55-minute strategic exercise has little in the way of boredom either.

Ultimately, as anyone who has had the misfortune to play a board game with a poorly matched couple can attest, how you behave in a fictional scenario does say something about how you behave in real life. While creating a war game may have no greater ethical implications than creating a war film, we can and should make judgments about my weekday sniping, just as we would make judgments about someone who spends every evening watching *Platoon* over and over again.

The ubiquity and economic success of the video game industry mean it is, belatedly, being taken seriously as an object of study. But that success and influence mean that gaming — and gamers — have to learn to live with a greater and more intense form of scrutiny and self-reflection.

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Letters

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Customers are ill-served by Ofgem's decision on ringfencing

Ofgem's decision not to require ringfencing of retail energy customer credit balances (Report, November 26) is indeed controversial.

Smoothing of bills over a season or a year helps customers. Putting their credit balances to work in the company, unprotected and unremunerated, could then be seen as voluntary by customers but, in practice, this is not the case for most.

Few personal customers are qualified to credit assess suppliers. Ofgem seems to have been influenced by concerns that some suppliers may lack the size, capital or credit standing to be able to ring fence balances. The firms are accordingly transferring a material business risk to those least able to shoulder it or effectively to object. Under-capitalised or poorly financed firms hide these deficiencies behind customer credit balances. They apparently assume that their inadequacy of resources for the risks they run is acceptable, even smart in some way. It seems to me that Ofgem has totally missed the point.

I used to be a corporate treasurer at British multinationals. I went on to be policy and technical director at the Association of Corporate Treasurers.

The costs of capital and of risk financing are costs of doing business. They should not be loaded in a disguised way on to naive customers.

Ofgem exists because the societal implications of failure by energy suppliers are material in ways that failure of small firms are not. Its move on ringfencing does not seem to recognise its wider responsibilities.

John Grout
Cambridge, UK

Plaudits for Malaysia PM's pledge on healing division

Anwar Ibrahim's swearing in as Malaysia's new prime minister, returning to frontline politics after his enforced exile, testifies to Martin Luther King's declaration that "the arc of the moral universe is long, but it bends towards justice" ("Anwar sworn in as PM after post-election tumult", Report, November 25).

Anwar has a battle on his hands to heal a fractured nation. His progressive and inclusive vision of a modern multicultural people is at loggerheads with a restless Muslim base agitating for the adoption of Islamic law. The systematic prioritisation of Malay privilege over the aspirations of minority Chinese- and Indian-Malaysians continues to foment interracial resentment.

As a Malaysian-born Chinese Australian, I remain hopeful. Anwar contends that regardless of race or religion, no Malaysian "should be left to feel that they are ignored in any way, none should be marginalised under my administration".

This aligns with the first chief minister of the Federation of Malaya, Tunku Abdul Rahman's declaration that "no man in his right sense would accept a nation which bases its political administration on religion, and in a country like Malaysia with its multiracial and multireligious people, there is no room for an Islamic state".

A governing principle to blunt these glowering angry times.

Joseph Ting
Adjunct Professor, School of Public Health and Social Work, Queensland University of Technology, Brisbane, Australia

Britons deserve more than bland Brexit optimism

We should be grateful to the CBI's Tony Danker (FT.com, November 21) for breaking the "Don't mention Brexit!" conspiracy of silence that has pervaded British public discourse for far too long and to Peter Foster ("Between the red lines: Ministers navigate a tricky path on trade as Brexit debate is rekindled", Report, November 22) for analysing the options confronting a nation desperately needing to grow the economy and resuscitate trade and investment with the EU.

No points, however, go to Rishi Sunak for his predictably ideological retort that "Brexit can deliver enormous benefits and opportunities for this country", without a shred of evidence to back it up, a statement that, in reality, is nothing more than a more polite version of Boris Johnson's infamous two word message to British business during his premiership.

Political parties should come clean and address in a serious and grown up manner how they propose to offset the damaging economic effects of Brexit, the evidence for which is now overwhelming.

Richard Wright
London NW8, UK

Sewage in UK rivers was a scandal in the 1800s, too

"A slender portion of common sense . . . authorises me to affirm that a stream which receives daily the evacuations of a million human beings . . . cannot require to be analysed except by a lunatic to determine whether it ought to be pumped up as a beverage for the inhabitants." Surfers Against Sewage (SAS) in 2022? No, this statement was made in 1828 to a public commission in London about the disease caused by dumping sewage in the Thames, as described by journalist and author Nick Higham in his book *The Mercenary River — Private Greed, Public Good: A History of London's Water*.

Skip forward nearly 200 years, and what headlines do we read: "Sewage storm: Water groups accused of 'dry spills'" (Report, November 24)?

Like the individual scientists who called out officialdom and greedy private companies in the 1800s, it seems that we, the public, must rely on not-for-profit organisations such as SAS to seek justice against greed and corruption. It is high time that the water companies were taken to task.

Jo Jacobius
London N6, UK

OUTLOOK

AMERICA

Tackle 'credit invisibles' to help close the racial wealth gap

by Patti Waldmeir

Tens of millions of Americans, many of them from minority groups, are paying more than they should for cars and houses because traditional lenders are underestimating their creditworthiness.

Government officials, big banks and social justice activists alike agree that closing the racial wealth gap in America depends in part on tackling the problem of "credit invisibles" — people with no credit record — and those with too little information on their record to score them by conventional methods. Traditional credit scores largely rely on having credit cards, auto loans and mortgages. Without a score from one of the big three nationwide credit bureaus (Experian, Equifax and TransUnion), people often either can't get consumer, mortgage or business loans, or pay over the odds because lenders aren't sure they will repay.

The US Consumer Financial Protection Bureau says 26mn (one in 10) Americans have no credit record and a further 19mn have insufficient or no recent credit history. This year Experian found that nearly 106mn US consumers are "unable to secure credit at mainstream rates" because they are either credit invisible or have a subprime or lower credit score.

The CFPB says this problem hits minority communities hardest: 45 per cent of consumers in low-income neighbourhoods — many from minorities — are either credit invisible or unscorable by traditional methods. Some 15 per cent of black and Hispanic consumers have no credit record (compared with 9 per cent of whites).

Now financial institutions are experimenting with ways to get around this, by using data not previously considered in credit scores. "It's our job to hold up a mirror with as little distortion as possible to every US consumer to ensure they are not being underestimated," says Kevin King, a vice-president at LexisNexis Risk Solutions, a pioneer in using "alternative credit data" to help lenders assess borrowers.

"Do you have a professional licence? That tells me you have the ability to get a job, all the way from a cosmetology licence to a security guard licence, and we look at asset ownership, higher education data" and other public records, he explains.

His company studied the low-income 60637 zip code on Chicago's south side, and found that while only 57 per cent of credit applicants in 2020 and 2021 were scorable with traditional methods, 95 per cent could be scored with alternative data.

Other companies are experimenting with using rent payments, utility bills and even video streaming subscriptions. I used one of the most popular tools — Experian Boost — to raise my credit score above the critical 800 threshold to "exceptional", simply by allowing Experian to link information about my Netflix, electricity and phone payments to my score, which had been depressed because I have no car loan or mortgage.

Jared Evans is community manager at JPMorgan Chase's new banking and financial education centre in the 60637 zip code, an effort to foster inclusion in such banking and credit "deserts". Just down the street is a pawnshop: the kind of place where people pay over the odds, if they can't use mainstream lenders. Evans — a credit invisible when he tried to buy his first car — says the need for credit-building is not discussed "around the kitchen table" in many homes in this area. He aims to change that.

Daniel Martinez, director of mortgage origination in Chicago for the Self-Help Federal Credit Union, says he uses "alternative data" to score borrowers — and finds them good credit risks. "We'll see someone with an 800 credit score that goes delinquent, where somebody [with a score based on alternative data] will pay on time. They just never had a chance before."

Kelly Cochran, deputy director of FinRegLab, a financial non-profit, says "both the pandemic and the focus on racial justice have increased awareness of the credit access problem", and its importance for addressing the racial wealth gap.

Big players in the US financial system are finally getting on board to make sure minority borrowers get better access to credit — while still protecting the institutions' risk by ensuring loans go to those most likely to repay.

The writer is a contributing columnist, based in Chicago

Opinion

Britain is two countries when it comes to energy

SOCIETY
Sarah O'Connor

In early 2020, before the pandemic and the war in Ukraine, a small story revealed something important about the state of Britain. British Gas increased the minimum amount by which people could top up their prepayment gas and electricity meters from £1 to £5. This caused a backlash. Some customers just couldn't afford £5 in one go. MPs got involved and British Gas reversed course.

When it comes to energy, the UK is really two different countries. There is the country in which people pay smoothed out bills, usually by direct debit, and there is the country in which people have to pay for what they use in advance. In the latter country, some have smart meters they can top up online, but many have "dumb" ones which have to be topped up at the Post Office or certain newsagents. You have to remember to top up before you go away so that your freezer doesn't defrost. You also have to manage the seasonal peaks in how much energy you'll need. In this country, if you owe money to your energy company, then each time you top up, a proportion of that money is taken to repay your debt. You also pay a slightly higher price for your energy than people on direct debits, because the companies say the system costs more to run.

Some people prefer prepayment meters because they can control what they are spending with no bills. Many others don't like them and don't want them — but their landlord insists, or energy companies have imposed them due to debt.

The number of people in debt to energy companies is now rising sharply thanks to the energy crisis. Data from Ofgem, the regulator, shows the number of customers repaying a debt to their supplier in the second quarter of this year was 1.5mn and 1.1mn respectively for electricity and gas, the highest in more than 15 years. Energy companies are only supposed to move indebted customers to prepayment meters as a last resort and not if they're vulnerable, but charities and Ofgem say they aren't always doing the checks they should.

Amy Taylor, a debt adviser and chair of the Greater Manchester Money Advice Group, was on the phone last month with a scared woman with a baby and a disabled child. The woman was hiding upstairs from a man with a warrant to fit a prepayment meter. Taylor ended up in a four-way conversation to resolve the issue. "He had the supplier on speaker phone, the lady had me on speaker phone, it was a bizarre situation."

> There's the nation in which people pay smoothed out bills and the one in which people must pay in advance

The switch to prepayment doesn't always involve someone at the door. If you have a smart meter, companies can switch you over to prepayment mode remotely. Ofgem recently chastised energy companies for switching people remotely "without full regard to the licence conditions, leading to serious detriment to these consumers".

If people are getting into debt because energy is too expensive for them, expecting them to pay for that energy (at a slightly higher rate) and repay debt simultaneously seems unrealistic. Citizens Advice data shows a steep rise in people who can't afford to top up their prepayment meter at all. The Fuel Bank Foundation, which provides emergency electricity and gas for people who are living without or will be in the next day or two, has seen a 75 per cent increase in referrals this year. Roughly half of those people are in work. "We're seeing people who have very traditional kinds of jobs — nurses, people who work in schools," says Matthew Cole, who runs the foundation.

What can be done? One idea would be a temporary debt repayment moratorium. Ovo, one supplier, has done this already, promising that "every penny put on the meter will go towards heating, not paying back debt this winter." Citizens Advice, meanwhile, has called for a ban on moving people to prepayment over the winter. An even better idea would be to get rid of the system for everyone except those who prefer it. France, for example, has no prepayment meters. Rather than disconnect indebted customers there, EDF reduces power to a minimum 1 kVA — enough to provide light and keep the fridge and freezer on.

But there is a bigger picture here too. The typical incomes of the poorest fifth of the population were almost no higher on the eve of the pandemic than they were in 2004-05, according to the Resolution Foundation. The poorest fifth of households in Britain are more than 20 per cent poorer than their French and German equivalents. The country's problems with a threadbare safety net have been laid bare by the crisis, but they weren't created by it. It was always going to be a hard winter. It didn't need to be this hard.

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Xi's pandemic triumphalism now haunts him

GLOBAL AFFAIRS
Gideon Rachman

In his 2021 New Year's address, Xi Jinping boasted of the success of China's zero-Covid policy. While millions had died in the outside world, China had "put people and their lives first . . . With solidarity and resilience, we wrote the epic of our fight against the pandemic."

Almost two years later, Xi's campaign to portray China's handling of the pandemic as a personal and systemic triumph is collapsing. Mounting demonstrations against his zero-Covid policies represent a massive loss of face for the Chinese leader. They look like the most serious challenge to his leadership since he took power a decade ago.

Some of the protests against China's unending lockdowns have taken aim at Xi personally. In the city of Chengdu, demonstrators have chanted: "We don't want a leader for life political system. We don't want an emperor."

These chants highlight the most sensitive political issue in modern China — Xi's efforts to create a personality cult. Since the death of Mao Zedong in 1976, the Communist party has avoided creating a new Mao, a single all-powerful leader, who dominates the political system and the country and who never leaves power. But Xi is taking China back to the days of quasi-imperial rule. A turning point was reached last month, when the Communist party congress appointed him to an unprecedented third term as the leader of the party. Xi's predecessor as Chinese president, Hu Jintao, was forcibly removed from the stage in front of the television cameras. The message was clear. Xi's power is now unassailable and he is set to rule for life.

Like Mao, Xi has justified his power grab by encouraging the creation of a personality cult. "Xi Jinping thought" has been written into the constitution of the Chinese Communist party. The Chinese leader's supposedly successful handling of Covid-19 has become a crucial part of his myth. A recent paper from China's State Council lauded Xi's leadership on Covid, proclaiming that "General Secretary Xi Jinping has taken personal command, planned the response, overseen the general situation and acted decisively."

It is true that China has recorded far fewer deaths per capita from Covid-19 than the US. But the costs of pursuing a zero-Covid policy are more and more evident. As the economy has stalled, youth unemployment in China has neared 20 per cent.

The social strain of prolonged and repeated lockdowns has also been immense. Two months of severe restrictions in Shanghai earlier this year made headlines all over the world. Some believed this would be a tipping point, forcing Xi to rethink the zero-Covid policy. Instead, at the party congress, Xi promoted the Shanghai party boss responsible for the lockdown, Li Qiang, to the second most senior position in the Communist party. It was a signal that there was no end in sight to the zero-Covid policy.

As part of the official myth-making around Covid-19, the Chinese leadership has contrasted the patience and collective spirit of the Chinese people with the impatience and individualism of Americans. But the patience, even of the Chinese people, is running out.

Pictures of unmasked crowds, from all over the world, watching the World Cup football in Qatar have demonstrated to Chinese people that citizens of other countries have escaped from the trap of endless lockdowns. By contrast, China faces the prospect of a fourth year of draconian restrictions on freedom.

> Zero-Covid lockdowns are a reflection of president's headstrong personality and innate authoritarianism

Having claimed credit for China's handling of the early stages of the pandemic, Xi cannot avoid the blame for the current crisis. Above all, the failure to import more effective foreign vaccines makes it much more perilous for China to relax its lockdowns. That failure is linked to the nationalism of Xi — who initiated a "Made in In China" policy for key technologies in 2015. A leader who claims to have boundless compassion for the Chinese people turns out to be too proud to import the effective vaccines that might save their lives.

The zero-Covid lockdowns are also a reflection of Xi's headstrong personality and innate authoritarianism. It has not escaped the notice of Chinese protesters that the technologies developed to track people's movements — in the name of battling Covid — could well outlast the pandemic and become a permanent and sinister method of political and social control.

More broadly, Xi's failures on Covid-19 are the characteristic failures of strongman rule, which invests too much power and authority in a single leader. Once that strongman makes a disastrous decision — as Vladimir Putin did when he invaded Ukraine — the system is unable to change course because the leader's judgment cannot be called into question. That same pattern is now playing out in China.

The moment when demonstrators hit the streets is always a moment of maximum peril for a strongman leader. Unfortunately, it seems likely that Xi's every instinct will be to respond with force and repression. That is how he dealt with the Hong Kong protests of 2019 — and it is how the Communist party crushed the student movement in Tiananmen Square in 1989.

Repression may well work in China — as it has, so far, in crushing protests in Russia, Iran and Belarus. But the carefully constructed myth of Xi's wisdom and power cannot survive the collapse of his zero-Covid policies.

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It is time to revisit the 2 per cent inflation target

Olivier Blanchard

Back in 2010, Giovanni Dell'Ariccia, Paolo Mauro and I argued for a 4 per cent target for inflation. At the time, central banks overwhelmingly rejected the idea. The reason was not so much disagreement with the logic, but the perception of a risk that, if they were to do so, they would lose credibility. The time has come to revisit the argument.

Twelve years ago, our case was based on a straightforward cost-benefit analysis. On the benefit side, a higher target and, by implication, higher average nominal interest rates would give more room for monetary policy to decrease interest rates when needed, reducing the risk of being constrained by the zero lower bound.

When the 2 per cent inflation target was chosen, its proponents argued that this would imply average nominal rates high enough to give enough room for monetary policy to decrease rates without running into this lower bound. This proved wrong; the zero lower bound was more binding than anticipated. A 4 per cent inflation target implied, other things being equal, average nominal rates higher by 2 percentage points, and would thus allow more room for monetary policy to operate.

On the cost side, the empirical evidence of revising the target suggested that while high inflation, say 10 per cent or more, could be very costly, the additional costs of 4 per cent inflation versus 2 per cent inflation were small. The main costs came from the distortions of an incompletely indexed tax system, but these could easily be eliminated by making the tax code inflation neutral. Indeed, the evidence suggested that a rate of inflation around 4 per cent made desirable relative wage adjustments much easier.

The central banks had spent many years convincing people that they were committed to the 2 per cent inflation target, and indeed inflation was then running around this level. The banks worried that, if people saw them increase the target to 4 per cent, they would become concerned about further increases and the investment in credibility would be lost. Thus, the proposition went nowhere.

Where do things stand today?

On the one hand, the relevance of the zero lower bound has become terribly obvious to us all. Since the beginning of 2010, the US policy rate has been at the effective zero lower bound for 95 out of 155 months, and, until the recent increases, it has been at the lower bound nearly all the time in the euro area as well as in Japan.

> Central banks are going to approach the decision from above rather than below. This makes a difference

True, central banks have had recourse to other tools, from slightly negative nominal rates to quantitative easing, but these have limited impact, are complicated to use and have adverse collateral effects. This has clearly strengthened the case for a higher target, and by implication for higher average nominal rates and a smaller probability of hitting the zero lower bound again.

On the other hand, I have become more open to another argument, based on salience. When inflation is low, people and companies simply do not think about it and thus do not react to it. This was certainly the case pre-Covid. When it becomes higher, however, inflation becomes salient, wage and price decisions become more sensitive to it, and inflation expectations become more easily de-anchored. All of this makes the job of monetary policy substantially more difficult.

The question is what rate of inflation leads to salience. A hint is given in a recent paper, which looks at Google searches for "inflation" as a function of the actual inflation rate. It found that, for the US, if inflation was around 3-4 per cent, people simply did not pay attention. Above 3-4 per cent, they did.

Altogether, these arguments have led me to conclude that, while a higher inflation target is desirable, the right target for advanced economies such as the US might be closer to 3 per cent than our original 4 per cent proposal.

Will it happen? In 2010, central banks worried about losing credibility if they increased the target, and by doing so, allowed inflation to increase from the then 2 per cent rate. This is certainly not where we are today. Central banks are going to approach the target from above rather than from below. This makes a difference.

I suspect that when, in 2023 or 2024, inflation is back down to 3 per cent, there will be an intense debate about whether it is worth getting it down to 2 per cent if it comes at the cost of a further substantial slowdown in activity. I would be surprised if central banks officially moved the target, but they might decide to stay higher than it for some time and maybe, eventually, revise it. We shall see.

The author is the C Fred Bergsten Senior Fellow at the Peterson Institute for International Economics

An anti-Slapp law is essential to the health of UK democracy

Mary Fitzgerald

For years, the rich and powerful across the world have used London's libel courts to silence journalism. So-called "strategic lawsuits against public participation" (or Slapps) have left many outlets fearful of publishing legitimate reporting on corruption, illicit finance, political wrongdoing and much more.

Now, leading figures and titles from across Fleet Street — including the Financial Times — are calling on Dominic Raab, secretary of state for justice, to swiftly end this abuse of British law. They are urging Raab to bring in an "anti-Slapp law", aimed at deterring wealthy individuals from pursuing costly Slapps to prevent scrutiny.

Together, these lawsuits have a chilling effect on press freedom — a fact to which I can personally attest, having been targeted by numerous attempted Slapps (and, in one farcical case, a potential criminal charge) during my seven years as editor in chief of the news website openDemocracy. I will never forget the time one of my reporters asked me "Am I going to lose my house?" after a particularly aggressive slew of letters from a leading British politician.

The FT has spent many years fighting such costly cases, most recently defending itself and journalist Tom Burgis against the Kazakh mining group ENRC. Writer Catherine Belton and publisher HarperCollins were pursued through the courts by the now disgraced Russian oligarch, Roman Abramovich. Journalists don't even need to be in the UK to be targeted with a Slapp — as Paul Radu, co-founder of the global investigative network OCCRP, experienced when he was sued by an Azerbaijani MP.

> London's role as the capital of libel tourism has had a chilling effect on press freedom

But it is often the cases you never hear about that have the most pernicious consequences. Precious few threats made against smaller, less well-resourced outlets ever make it to court. As Radu notes: "The people suing journalists in the UK rely on these huge legal bills being so intimidating that the journalists won't even try to defend themselves."

Until Russia's invasion of Ukraine, it seemed London might always be the global capital of libel tourism. But in March, under pressure to stop the city's long-running abuse by Putin allies trying to launder their money and reputations, Raab finally promised action.

The proposed anti-Slapp law, developed by the UK Anti-Slapp Coalition which advises journalists, would rebalance the scales in several crucial ways. For a start, it introduces a new filter mechanism that empowers courts to assess the merits of a claim and potentially throw out Slapps early in proceedings. The law also brings in penalties to deter Slapps and to compensate those targeted.

None of this can come a moment too soon. But if any new law is to succeed, it must be accompanied by deeper change in our political and judicial culture. The legal industry has long profited from the status quo. It needs root and branch reform — starting with serious penalties for firms accepting money from clients who cannot demonstrate the origins of their wealth. Bodies such as the Solicitors Regulation Authority need more power and resources, so that they can monitor and report on Slapps, and provide more robust guidelines and sanctions against abuses. Perhaps most importantly of all, politicians themselves need to stop abusing our courts to silence "inconvenient" journalism.

Time and again, journalists have exposed how Britain is a global hub for illicit finance. In March 2022, the National Crime Agency estimated that the scale of money laundering impacting the UK is in excess of £100bn a year. Speaking in July, Raab underlined his commitment to reforms which will "uphold freedom of speech, end the abuse of our justice system, and defend those who bravely shine a light on corruption". That means legislation, yes. It also means political leadership that honours and protects the vital role of public interest journalism in our democracy.

The writer is director of expression at Open Society Foundations

Lex.

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China stocks: viral spiral

China is struggling with its worst coronavirus outbreak since the pandemic began. Lockdowns have sparked mass protests. Market moves yesterday pointed to growing financial risks from political volatility.

Protests broke out this weekend in cities including Beijing, Shanghai and Wuhan. A deadly fire in Xinjiang fuelled anger over government policies. Party officials have been reluctant to import bulk foreign vaccines better than the Sinovac jab, resorting to tough lockdowns instead.

Public disorder first hit commodities markets. Prices for copper, iron ore, crude and coal added to sharp losses last week. This pointed to weakening demand from China, the largest importer. Shares fell sharply in early trading before clawing back some of their declines. The few stocks that rose yesterday added to a bleak picture. Jiangsu Yuyue Medical Equipment rose more than 5 per cent, adding to gains of over 50 per cent in the past six months. That reflected steep infection rates and expectations that numerous new hospital beds and intensive-care machines would be needed.

The rally did not transfer to vaccine makers and drugmakers. Shares of Sinopharm, Jiangsu Hengrui Pharmaceuticals and Shanghai Pharmaceuticals fell yesterday. Stocks of vaccine makers China National Medicines Corp, CanSino Biologics and Walvax Biotechnology remained flat. The latter is developing a shot deploying mRNA technology, key to the success of western jabs. Shares of PCR testing companies Shanghai Labway Clinical Lab and Dian Diagnostics were weak.

The enforcement and cost of the zero-Covid policy have fallen on local governments. Their resources are severely stretched. Demand for testing, vaccines and drugs are soaring. But on-time payments cannot be guaranteed. Accounts receivable at the biggest PCR testing companies nearly doubled in September to $5.4bn. There is a danger officials will expect healthcare groups to absorb losses, as they have done with banks amid the property crisis.

When unpredictable politics calls the shots in stock markets, performance disconnects from fundamentals. Investors should then withhold fresh funds and consider selling. China tech has been in that bucket for some time. The question is whether the Chinese market as a whole is becoming uninvestable.

PSG/Qatar: round figures

In "keepie uppie", footballers aim to defeat gravity's pull on the ball for as long as possible. Owners of top clubs such as Paris Saint-Germain are playing the same game. PSG's Qatari proprietors have discussed selling a minority stake of up to 15 per cent, targeting a total valuation for the club of €4bn (£3.44bn).

At least two other teams recently arrived in the shop window, Liverpool and Manchester United.

When club owners dine together they can toast the rising arc of valuations. The PSG figure would top the £2.5bn achieved by Chelsea earlier this year. That towers over the €70mn the Qataris paid back in 2011 for the Paris side, before they began to invest heavily in players. It would put PSG on seven times trailing revenues of €556mn, more than Chelsea received.

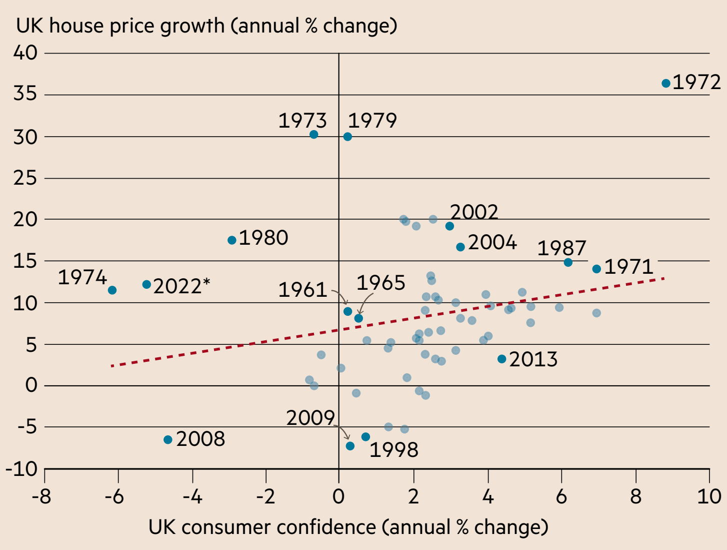
The Qatari investors say they have no intention of selling out. They simply want more expertise in the supporters' tent. Could they not hire that? This is needed on the financial side. PSG has lost money recently, even at the ebitda level. Despite generating a quarter less in sales than PSG, Liverpool reported a sizeable ebitda gain in the season ending 2021. That partly comes down to unremunerative broadcast contracts in France's Ligue 1.

The popularity of minority stake sales is striking. Of the 40 stakes bought in the top five leagues since 2017 to October this year, more than half were minority ones, says Deloitte. In September, Silver Lake increased its stake in Manchester City by over a quarter to 14.5 per cent.

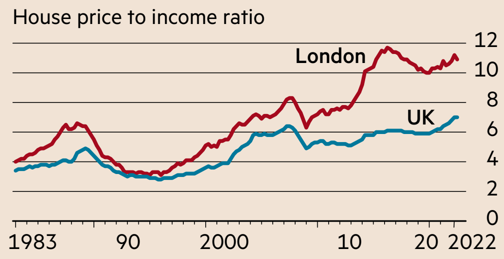
Some private capital valuations are returning to earth, as Tiger Global has revealed. Yet clubs still have a lighter than air quality. You could theorise that this reflects the success of football as an entertainment business. There is a blunter, more circumstantial explanation. Prices of trophy assets usually leap when an auction room is visited by cash-rich whales. More than a decade of rising asset values has created plenty of these.

UK house prices: panic at the disco

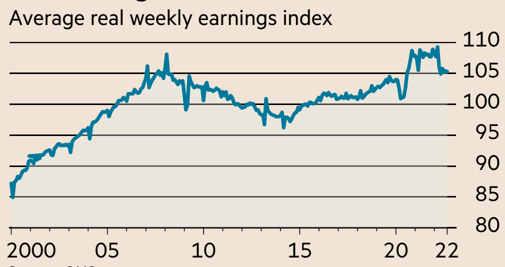
Falling consumer confidence signals a slowdown in UK house prices. Low affordability, in part because of stagnant real incomes, has restrained recent rises



Source: Refinitiv * Consumer data to May 2022/HPI to Q3 2022



Source: Nationwide



Source: ONS

A fellow columnist did not merely predict a UK house price crash some while ago. He also stayed out of the market. His outlay in buying a costly dwelling years later serves as a terrible warning against taking one's own financial advice.

Pundits are once again forecasting that the UK property soufflé will collapse. Interest rates are rising and real incomes are deteriorating. Zoopla has provided some apparent evidence. Buyer demand has fallen by almost half since Liz Truss's "mini"-Budget derailed the mortgage market in September, the property portal said yesterday.

However, a crash presupposes a bubble. Has there been one? It is true that nominal house-price growth neared a two-decade high this year. But the increase remains restrained by historic standards. A drastic correction is a distant prospect too. During previous periods of UK housing exuberance, nominal prices rose faster and for longer. Average annual price growth in nominal terms peaked at about 30 per cent during each of the four big postwar bubbles. The most recent peak in the rate was at half that.

Adjusted for the overall levels of price growth, the highest average of previous bubbles falls to 20 per cent. The most recent real top pace hit about a third of that. The restraint is mainly owing to changes in lending curbs brought in after the great financial crisis. Dodges such as self-certification of income and zero deposit mortgages were prohibited. Deal volumes never fully recovered to pre-crisis levels.

It is true that at seven times average earnings, a UK dwelling has never been less affordable. The ratio is almost double that in London.

Businesses dependent on property transactions, such as housebuilder Persimmon, have suffered share-price drops of more than 50 per cent. Even the stock of dominant property portal Rightmove has fallen by less than a third. But with stretched first-time buyers scarce, there should be fewer forced sellers to create a downward spiral. Prices are certainly cooling. But the good news for house-hugging Brits is that a crash rivalling the 20 per cent decline of the global financial crisis is unlikely.

XP/online broking: tropical punch

XP Investimentos is a Brazilian success story that has gone astray. The online brokerage's share price jumped almost 30 per cent to $34.50 at its debut on the Nasdaq exchange in December 2019. Over the next two years it hit peaks of more than $50 on three occasions. This week, it is at an all-time low of $16.50.

What went wrong? The Nasdaq Composite has risen 30 per cent during XP's lifetime, while XP has lost half its opening-day value. This year, the index is down 29 per cent and XP is 45 per cent lower. While global conditions are part of the story, changes in XP's domestic market account for the rest of the drop.

XP has a different business model to Robinhood. But like the US online broker, it owed much of its success to low interest rates. Brazil's central bank cut its policy rate from 14.25 per cent in 2016 to just 2 per cent in March last year. Brazilians had been used to juicy returns from bank deposits. When those faded, XP offered spicier options such as equities and corporate debt.

With the policy rate now back up to 13.75 per cent, there is less reason to buy risky assets. XP's net inflows of R$35bn ($6.5bn) in the third quarter were down 19 per cent from the previous quarter and down 7 per cent year on year.

XP's other proposition is banking services — first investment funds, then credit, then digital accounts and other services — at a fraction of the usual charge. But XP's costs have risen recently.

The XP share price has also suffered since the central bank stopped high street bank Itaú from taking control, leading to the slow sale of its 20 per cent stake.

Robinhood shares are meanwhile down about a half so far this year.

XP would doubtless prefer comparisons with giant US low-cost broker Charles Schwab. To merit this, it will need a steadier business model and fewer flashy initiatives. A little boringness is now in order.

Dementia: the intransigent disease

Dementia is the problem disease that has gone on being a problem; cancer has been pushed into retreat with immunotherapy medicines. Dementia drug candidates have one of the highest failure rates in clinical development — 97 per cent, according to one study.

Shares in Biogen fell 4.5 per cent yesterday after the website Science reported the early death of an Alzheimer's patient participating in trials of lecanemab. The US biotech has been developing the treatment with Eisai of Japan. In September, the two companies said results of a late-stage clinical trial showed the experimental drug reduced the rate of cognitive decline in early-stage patients.

Investors responded by bidding up Biogen and Eisai shares by 47 per cent and 66 per cent, respectively. Dementia is a Holy Grail for drugmakers because it affects more than 55mn people and costs the global economy $1.3tn.

It results from several distinct diseases. Symptoms can emerge a decade or more after onset. This makes it hard to diagnose and to find early-stage patients for drug trials. The slowness of the disease means trials are lengthy and expensive. Drug efficacy is hard to measure for cognition.

Like other Alzheimer's drugs, lecanemab targets the build-up of sticky plaques in the brain known as beta amyloid. This is controversial. Critics see little conclusive evidence that treating plaques provides benefits.

Regulators are unlikely to rush approval after last year's botched launch of Biogen's aducanumab, an amyloid-clearing drug. A report that authorities are investigating the deaths of two patients during lecanemab's trials will increase scepticism.

For investors, there is merit in backing dementia research. With populations ageing in the developed world, a successful treatment would generate social and financial benefits.

However, scientific understanding is needed even for crude binary bets on stocks. Start by reviewing the evidence on amyloid plaques.

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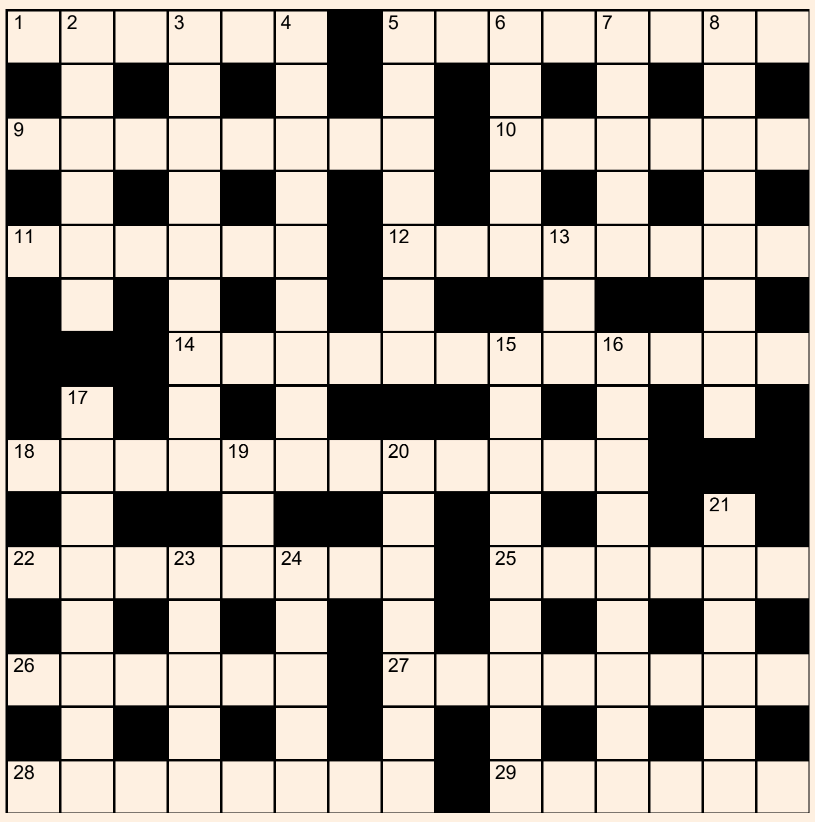
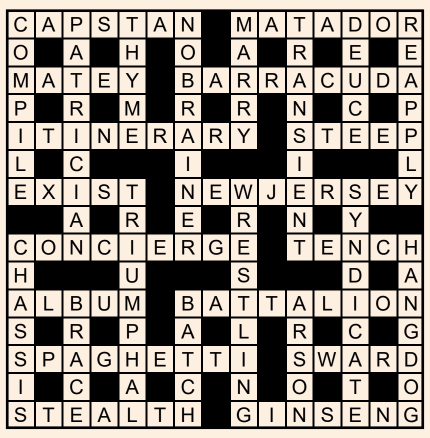


ACROSS
1 Bedlam at university — paddle round river (6)
5 Lids seen to flutter in dalliance? (8)
9 Settle for section in Beethoven's concerto (8)
10 Deliver on location as discussed (6)
11 Facing archdeacon, counterpart appears powerless (6)
12 Moved Laotian area in Asia Minor (8)
14 Society stops consortiums reformulating failed policy (12)
18 Score with awkward truths in spirited exchange (3-3-6)
22 One buried inside in a tomb strangely shows desire (8)
25 Alpha male in charge for minute (6)
26 Checked receding water level — dredge in middle (6)
27 Looking awkward and ugly in an upset (8)
28 Hero in poem by American about yard and ship (8)
29 Plan to have rump in cooking range (6)

DOWN
2 Severely criticise the German seen in Bow (6)
3 Gold box Rubbra emptied for ensemble (9)
4 Car stuck on shore no good (9)
5 One cold room over in chilly regions (7)
6 Six-footer to be left Bible among reformed drinkers (5)
7 North American food wife leaves as snack (5)
8 Rehearsed play possibly flat on stage? (3,5)
13 Outline of waist turning round figure (3)
15 Broken rule again produces intermittent pain (9)
16 Landing light visible in sky? (9)
17 Old hat banned by doctor penning poem (8)
19 Noodle from UK region sort of square (3)
20 Suspend courier displaying emotional problems (4-3)
21 Perhaps like Red Baron, flier showed the way (6)
23 Stroke — fantastic cut — is making boundary (5)
24 Trendy? Check out music genre (5)

JOTTER PAD

Solution 17,263



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